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VOL. 3. RALEIGH, N. C., APRIL, 1854. NO. 1.

JOHN F. TOMPKINS, M. D., Editor. Wm. D. COOKE & Co., Proprietors.

Miscellaneous.

SIGNS OF A POOR FARMER.

He leaves his farming tools and implements scattered around, and exposed, summer and winter, to sun and rain.

He keeps no tools to repair his broken implements, when he might just as well do many small jobs as to spend his time at the blacksmith's, or wheelwright's.

His fences are "patched" up from year to year, just for the necessity of the time being, and he is constantly in trouble; his cattle destroying his crops, and those of his neighbor.

His meadow, or mowing lands, are cut from year to year, from his childhood up, when his father mowed the same lands. They become "sward bound," and produce but half a crop, and of very poor hay at that. He grazes his mowing lands in the fall down close to the ground, and his pasture lands early in the spring.

He suffers his buildings to become leaky, and his stored crops to be damaged thereby.

His stables are cold and leaky, and his horses and cattle suffer in consequence, and require one-third more food to keep them in the same condition that they would in dry warm buildings.

He overstocks his farm with lean, gaunt animals, that he has bought *cheap*, or raised from stock that he has purchased at a *low* figure.—His hogs are of the breed that requirers two to make a shadow; his fowls are small, uncomely things, that would take three or four for a meal for the family—of the eternal scratcher *genius*—that no wing-clipping, nor high fencing will keep out of the garden.

He has a place for nothing, and nothing is in its place; and when a tool is wanted, ten or fifteen minutes are spent in finding it, and then it is out of order, and can't be used.

He is eternally borrowing of his neighbors, but never returns the borrowed articles at the time he agrees, and the owners have to send for them, and generally find them *broken*, but no offer is made to repair them.

He makes no calculation for rainy weather, and in stormy days he and his hired men louneg about, when they should be repairing broken tools, grinding or painting them, and doing a hundred other useful things.

He never has time to set out a good stock of fruit trees, nor to graft such as are on his premises, but he has time to lounge around the tavern or village store, to debate the political questions of the day, and to spend an hour or two daily in useless "*yarns*" with others who have nothing to do but to discuss other people's business.

He does not take advantage of fine weather to drive his business, but his business drives him, and he is constantly behind others in his work, and consequently has to perform more labor in hoeing his crops than other people do, and also loses a portion of his crops by the accumulation of weeds, which sap the fertility of his soil.

He seems to think that his arable lands never need rest, and as he makes but little manure, and that little is exposed to the storm, he cannot return to his soil more than a mere fraction of what he draws from it, and his lands grow more sterile every year, till he begins to think it is time to remove to the West. He plows but four or five inches deep, because he does not know that by plowing *ten* inches or more in depth, a much larger crop would be realized, and his lands would withstand drought much better. The consequence of this course is, that the roots of his crops have no room to penetrate the earth, and the first dry weather withers them.

In front of his house, we see either a rail fence or one of boards in a rickety condition, with gates hanging on one hinge. Every thing looks untidy and forlorn about the premises. Piles of rubbish lie in heaps in every direction, and the slops of the kitchen are thrown down at the kitchen door, for the hogs, dogs, and hens to wallow in, making a stench that would produce the yellow fever in some climates. A few old hats are filling sundry air holes in his windows, and his poor wife, broken-hearted and discouraged, does all she can to appear tidy, but as most of her time is taken up in driving the pigs and poultry out of the house, she cannot keep things in order, and gives up in despair.

He brings up his children in ignorance, and thinks that their feet need no shoes, only for a few weeks in winter. He does not require them to wash their hands, nor faces to be washed oftener than once a week, and their heads are covered with a mat of snarled hair that would break a curry comb to disentangle.

No paint is ever brought on his premises, by his request, as such articles for covering the weatherboards of buildings are entirely superfluous, in his opinion; nor are shade trees of any advantage, nor a garden, nor newspapers of any kind, and if one should ask him to subscribe for the Northern Farmer, he would get his "walking papers" very suddenly, because he abhors "*book* farming," and he knows more than all the papers in the country can teach him.—*Northern Farmer.*

PLANS FOR THE YEAR.

A person who first vists one of our best manufactories, is struck with the perfect order and system that prevail in every part of the establishment. Every man is busy, and every one knows his place; every part of the machinery is perfectly adapted to its intended purpose,—slow and powerful in one part, and light and rapid in another; the power applied to move the whole is just sufficient for all its multifarious operations, and none is wasted; the rough materiel is carefully worked up in such a way that nothing is lost; and skillful calculations are made of all the expenditures as compared with the future profits, and the whole carefully recorded by skillful clerks, in such a manner that those transactions that contribute most to profit, or those which occasion loss, are quickly detected.

Is it so with the farmer? Does he so arrange his business that every hired man is occupied, knowing at any moment what work is assigned him, and so that none are idle at one time, and again overwhelmed with accumulated work at another? Is the team power perfectly adapted to the amount of tillage in view, with steady labor, and without over-driving? Is the system of business such that the farm forces may be evenly distributed through the season? And, above all, has the careful and keen-sighted farmer ascertained by accurate accounts and by weighing and measuring, which of his operations are paying him best, taking the cost of the rough material, the expense of working it over, and its ultimate avails, all together into the estimate.

The farmer's rough material—the land, and the manure appplied to enrich it—is too often left out of his calculations. He counts only the amount of money *received* at the end of the year, and the cost of labor, but nothing more. A system of cropping is pursued that appears to be profitable, because it returns money; but if it is really impoverishing land, the owner is really selling off his farm piece-meal, and it is as great an error to call such a course profitable as it would be to sell off a ten-acre slice each year, and throw the avails promiscuously into the sales of crops. Nay, it is *better* to reduce the farm in size, than to reduce it in quality, for the reason that a small and fertile farm yields more *nett* profit, than the same produce from a larger estate cultivathd at a greater cost. Manufacturers are very careful of the rough material—let no farmer be less so, because, unlike them, he is not compelled to buy his supply every year, for a bale of raw cotton or a ton of wool is worth as much when left by inheritance as when paid for each day in cash. An interesting proof of the deceptiveness of *present* profit was furnished by an experiment performed some years ago in England with two distinct plans of rotation,—one, with the wheat crop occurring frequently, and constituting a more exhausting course; and the other, more beneficial to the soil, but affording less return in cash. At first the close cropping course appeared decidedly the most remunerative; but in the course of years the other had so improved the land, that the minor or secondary crops themselves proved as profitable as the wheat crop had formerly been, which now far exceeded them, and thus rendered the enriching course the best, even throwing out of view its influence on the soil.

An even distribution of labor is of much importance, and not unfrequently entirely overlooked. Hands hired for the season commonly come to understand the routine of work much better than day hands, and they work more cheaply. A farmer sows half his fields with wheat, with the hope of realizing a fine sum of money; but after the wheat is sown, his men have but little to do that is profitable until the next harvest, when he may be compelled to pay double or even triple wages, all of which trim down the profits, and say nothing about the "rough materials." The appropriation of land to the production of some particular product exclusively, has been beautifully advocated by theorists, but in long practice it will not be found to compare with mixed husbandry, that is, with the judicious rotation of crops, combined with raising full herds of domestic animals for the production of manure. In other words, raise plenty of animals, to enrich the crops, which are to feed the animals again. This action and reaction is the very best way to create a plentiful surplus for sale, and at the same time preserve or increase the fertility of the farm.

There is no error more common than the imperfect execution of certain operations, when the farmer finds himself behindhand, with a deficiency of hands. This error is the cause of the luxuriant growth of mulleins and thistles so often seen in pastures; and of the heavy coating of weeds which overpower young root-crops, and choke the free growth of corn and potatoes. These often consume all the nett profits of the crop, and a defective plan thus compels the farmer to labor for nothing. We have known a crop of oats so diminished by a few days delay in sowing in spring, and a large field of wheat by a similar delay in autumn, as barely to pay for seed and labor, which otherwise might have yielded a heavy return.

There is no remedy for these evils but a careful and accurate plan of operations at the commencement of the year. The course of cropping should be distinctly marked out beforehand, and the number of acres determined for the oats, barley, corn, potatoes, carrots, wheat, corn-fodder, and so forth; the amount of labor for each of these may be nearly estimated, and the time in the season when each should be fully completed; and then, making allowance for interruptions, accidents, and rainy weather, the requisite force may be timely secured, and the whole machinery move on with regularity and without any derangement. All these plans must be fully recorded in a book kept for the purpose—if the memory is depended on, confusion and failure will be the certain result. If possible, the year's plans should be so completely digested, that the operations of every week

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may be distinctly laid down on a page allotted for each; the necessary variation of a few days according to the earliness or lateness of the season, may be easily made afterwards. On such a book as this, notes may be made with the progress of the season, thus perfecting the plan for a second year. A few minutes daily devoted in this way, will accomplish much that is valuable for the former, and prevent a great deal of anxiety and confusion.—*Country Gentleman.*

KITCHEN COMFORTS.

We accepted a polite invitation from a friend in the country, not long since, to spend a night at his farm-house. It was a stormy day—the wind was keenly sharp, and a light snow, which filled the air, was whirled upon us in irregular showers. Chilled to the bone, we looked forward eagerly to the blazing fire on the wide hearth in the ample farm house, and indulged pleasing reminiscences of days gone, when it was often our privilege to meet merry children at a Farmer's fireside, where hearty sport was encouraged, where we used to look for big apples and nuts, and capacious mugs of cider, and huge cakes.

It made no difference to us then, if the kitchen was the place where the old folks sat, and where company was received; it was our playhouse, and we were occupied in joyous sport. But, as we grew older, we thought it strange that the independent farmer did not have more books and pictures in his house, and did not occupy with his family, more frequently, some other room than the kitchen; for his house was large and had many apartments.

Thus occupying ourself with recollections of the past, and hopes for the future, we spurred our horse forward, but it was nightfall before man or beast was hospitably cared for, and then did we sit down before that roaring fire, which had been blazing before us all day? Not at all. We had forgotton modern improvements, and the price of wood. A mammoth cooking stove stood on the hearth, and though it warmed the kitchen thorougly, it failed to throw over it that cheerful glow which was imparted from, and that social sentiment which gathered around, the old fashioned fireside. Surely, thought we, a man who owns one hundred acres of land worth one hundred dollars an acre, who has a splendid house, well furnished, who has a barn well filled, and money in the bank, does not make his kitchen, with its cheerless aspect and its common place associations, the family home. But it was so. In that farmer's house, but one newspaper was received—it had no pictures—no musical instruments. Except on Sunday when the minister came, or when the farmer's daughters had company, the kitchen was the only room in the house where a fire was built, and there the family sat silent, not sad, but not joyous, during all the long winter evenings.

We had no reason to complain. We were treated most hospitably. Certainly the kitchen was good enough for us, but it was not good enough for the farmer's family. He estimated the value of corn and wheat and cattle more carefully than he did the value of elevating home associations. His girls said, "Oh, how we should like a magazine and a piano," and his boys said, "How much we desire the new books that are being published;" but the father counted the interest on the money he had in the bank, and said "We can't afford to buy books and music. I have got to make some provision for you all in the world."

He forgot, thoughtless man, the knowledge elevating associations and dear home ties, ties which none of the rude shocks we meet in the world can sunder, are worth more than houses and lands or gold and silver.

Money in music and books and pictures, which give an attractive delight to the home circle, returns often a better per-cent, to a hopeful father than money in banks or railway stocks. Extravagance is always to be reprehended, and there may be extravagance in money-getting as well as in money-spending. When we are able to have homes, their judicious adornment, through efforts to make them delightful to ourselves and our children, is a duty higher than money hoarding.

There is a remunerative philosophy in this view of home life, and our farmers should study and practice it more; but there are others than farmers who might profitably give it heed, who, in cities, have no money for music and books and pictures, who cannot go to lectures and concerts, but who smoke the best cigars and patronize the richest saloons.—*Cincinnati Columbian.*

FALL PLOWING----WHY BENEFICIAL.

We have repeatedly referred to this subject, and have shown how this practice operates beneficially upon the soil. There is still another view to be taken of it, worthy of *practical* consideration. It is perhaps true, in general, that when fields are plowed in the fall, a *larger amount* of vegetable matter is buried in the soil, than when the operation is deferred to the spring. The browsing of cattle, and perhaps a more thorough consumption by swine, roaming freely over its surface, added to the effect of wind and storms, and the natural changes which take place, when left on the surface, essentially diminish the quantity and quality of the stalk and stubble, left originally by the reaper. This difference, in particular cases, may be of no little practical importance.

But there is another and more important difference. Green crops decay much more rapidly than dry stubble. If therefore green vegetable matter be plowed in in the fall, the early spring growth receives a far greater benefit from it than if the same matter had been left upon the surface, there to become dry and more capable of resisting the appliances which should hasten its decomposition. Every farmer's boy knows the comparative readiness with which green hay when in a confined state, takes on fermentation, while that which is well cured endures almost any treatment and still remain unchanged.—Where the object only to restore the elements of fertility to the soil, without reference to the speed of its action, as already suggested, the argument would still be in favor of plowing it in when green. But when its fertilizing properties are needed by the young shoots of early spring, the importance of this point must be readily appreciated. For it should ever be kept in mind that health and vigor are of the utmost importance in the earliest stages of vegetable growth. Without a vigorous root and stem, there never can be a vigorous plant; and though the case is not utterly hopeless, when in its first efforts, the young shoot is obliged to encounter even a severe struggle, it is far better to avoid this danger of its destruction. In general, the character of its early growth determines the character of its entire growth.

Probably every farmer knows that if, for a portion of the year, a sheep be but half fed, the growth of his wool for that period will be materially affected. The fibre will be more slim and weaker; and, as in the case of a rope, no greater strain can be put upon it than its weakest part can endure, so it will be as to the power of this fibre of wool. The vigor of any vegetable tissue is affected in a similar manner, not always, perhaps, beyond partial redress, but always to the injury of the plant.

Whatever then tends to a healthy and vigorous growth, when the seed first puts forth, performs a most important service. Green crops, when plowed under, do perform this service in a much more speedy manner than dry stubble, and hence, the careful farmer will endeavor to avail himself of all the benefits he can thus secure to his land.

It is in accordance with this fact that in those districts where the art of agriculture is carried on in the most thorough manner, green crops are often raised for the very purpose of being plowed under. Clover, buck-wheat, turnips, and various other crops are sown with this single design. Sometimes, two or three such crops are thus buried in the soil in a single season.—It is on this principle, in connection with another which regards exact similarity in the character of the elements furnished and those demanded by the young plant, that a manure of the prunings of the grape vine is more efficient for grapes than almost any other application. In dry, loose, sandy soils, we doubt whether fall plowing, of itself, is to be commended: all our philosophy is against it, and in practice we know of nothing which teaches of a different lesson. But even on such soils, if the farmer will turn up the subsoil, which is often clay, and mingle that with the lighter sand upon the surface, fall plowing will prove to be of great value. The frosts and storms of winter will promote a thorough mingling of the elements now brought into contact, and the labor necessary in the spring to prepare it for seed will be comparatively light.

Our experienced and judicious neighbor, Mr. A. B. Allen, recommends that guano be spread broadcast in the fall of the year, at the rate of 100 to 300 lbs. per acre, and ploughed in from three to twelve inches deep, and then to replow in the spring. By this process, the guano effects a double purpose: it becomes well mingled with the soil, ere the seed requires nutriment, and without the danger of causticity, &c.; it alto tends to promote the decomposition of the sod and other vegetable matter in the soil.—*Plow, Loom & Anvil.*

From Soil o f the Soil.

CORN AND COTTON CULTURE.

Mr. Editor: "If I can make a good crop of forn and cotton this year," is a reflection that is absorbing the greater portion of the planter's time at the present season. The economy in the various modes of preparing and cultivating, and the final yield, are three points which engage the talents of those employed in farming. Why is this the case? Have we not planted corn and cotton long enough to know the best mode of preparing and planting? This may be answered by the waste, ware and consumption of the nutritive properties of the soil, and the ever varying seasons. These make it to every farmer's interest to become a subscriber and a reader of some agricultural paper, so that he may not rely upon his meagre or limited experience or observation, though he may be old in his business. I trust it will not be considered vain or presumptuous in me to say, that the *Soil of the South*, should be first for planters in our section of country. "Give honor unto him to whom honor is due," is an old maxim, and with feelings mingled with pleasure and pride, have we heard the name called, and witnessed our distinguished editor receive the premiums awarded to the best essay upon the cultivation of corn and cotton, at our State Fairs. Now, Mr. Editor, after your acknowledged and well merited essays have been given to us for our reflection, and as an example, I hope you will not consider it presumption in me, to give you my plan of preparing and planting these corps.

In the first place, I have my corn land plowed close and deep as early as possible; lay off my rows the distance I wish to give the corn, and throwing it into beds. When ready to plant, open the middle or water furrow, drop the corn the distance I wish to have it in the drill; or if hill corn, let it be checked off previously, covering with a wooden tooth harrow, which gives a light and loose covering. Should there come a rain and bake the ground before the corn is up, run the harrow over the second time. Corn planted this way, on low and flat land, of a wet or backward spring, will be apt to rot, unless covered very lightly by a harrow or something that will give a similar covering. Upon this plan, after the corn receives the third plowing, it will be fully a foot in the ground, and as the roots are nearly all given off literally, and grow superficially they consequently require some depth to be protected from a drought, and are less injured by the last plowing. As to distance, I am governed altogether by the quality of the land. As a general rule, one hundred stalks will make a bushel of corn, and if the land under favorable seasons will produce twenty bushels of corn per acre, I give it four and half feet each way; or if in the drill, three and a half by six feet, will give about two thousand stalks to the acre. Now if an acre of ground can only mature twenty bushels of corn, is it not folly to put any more upon it? For there will be an excess in stalks and fodder, a deficiency in weight of corn, besides being a disadvantage to the land, and leaving less space for a pea crop. My mode of planting swamp corn, is a little different from the plan usually followed. Some bottom land is the better for being thrown into beds, while with some other land, it does not make any material difference.

Run off the row, drop (or I would not do wrong to say sow,) the corn, cover it with four furrows, run over this an iron tooth rake, which breaks the clods, and removes all trash, leaving the corn row entirely clean, for twelve inches on each side. I use the harrow after each plowing. Give it to a careful hand and let him follow after the plows, running two or three times in each row, which breaks up and kills the bunches of grass, young cane, weeds, &c., saving fully two-thirds of the hoeing. This harrow can be used to an advantage, on the first year's land. The construction of it is very simple, after the pattern, two feet wide at the open end, has eleven teeth made out an inch square bar of iron, straight, the lower end tapered to a point, has the upper end tapered to half an inch, with a tap; the mortice in the stock must be cut tapering also. It will be found very useful in sowing turnips, grazing lots, &c.

It is generally admitted to be the best plan to plant cotton on beds, and they should be made early, and it is frequently the case, that the grass weeds come up with the cotton, or a little ahead, and get the start of it. In order to obviate this, run off the rows, make a ridge with two or more furrows, as the distance of the rows may require, to complete the beds, just before planting. This combines the advantages of early and late bedding, without the disadvantages of either, and consumes no more time.

The beds should be opened with a small scooter, made for the purpose, so that in running round with the plows for the first time, there will be a space not more than three or four inches wide, instead of six or eight inches, which gives nearly half of the space of the cotton row list in favor of the hoe hands. The seed should be covered with a wooden tooth narrow; if the ground bakes, run over the second time.

Respectfully,
J.

White Sulphur Springs, Ga., 1854.

HOW TO KEEP HARNESS IN ORDER.

The subject indicated by the above heading, has been discussed of late in the *Rural* by two or three correspondents, but is of sufficient importance to bear further comment. With all due deference, we are constrained to express the opinion that few of those directly interested give proper attention to the durability and appearance of harness, carriages, &c. We will, therefore, give the mode of oiling and washing harness, practiced by one who is qualified to speak understandingly upon the subject.

Observing the good condition and fine appearance of the harness of Ald. Baker, proprietor of the most extensive livery establishment in Rochester, we requested him to impart to us, for publication, the *modus operandi* by which so desirable a result was achieved. In compliance therewith, he stated the course adopted as the best and most economical, after twenty years experience in a business which required considerable attention to tackling apparatus. His process of oiling and washing harness is substantially as follows—

Take Neats Foot Oil, and Ivory or Patent Black—the latter well pulverized, or to be made so before using. Mix thoroughly—adding the black until the oil is well colored, or quite black In cool weather the oil should be warmed somewhat before mixing. With a sponge apply a light coat of the mixture—only what the leather will readily absorb, unless the harness is very dry—in which case a heavier coat may be necessary. After the harness is dry—which will be in from two hours to a half or a whole day, depending upon the weather and previous condition of the leather—wash thoroughly with soap suds. In making the suds use *good Castile soap and cold rain water.*—(Warm water should never be used on harnass leather.) Apply the sponge. Rub off with buckskin. This will give the harness a nice, glossy surface, and the leather will retain a good color and continue pliable for months. If it becomes soiled with mud, or sweat, an application of soap and water, as above directed, (without oiling,) will be sufficient to give it a bright appearance.

Two applications of this oil and black mixture a year (or once every six months,) will be sufficient to keep harness, as ordinarily used, in good order. It may be necesary for livery men, and others who use harness constantly, to apply the oil oftener—but in most cases two oilings a year, and washing with suds when soiled, will keep a harness in good trim for sight and service. This process will pay a large dividend in extra service and durability,—to say nothing of improved appearance.

Ald. B. assures us that the same, or a similar application, is just the thing for carriage tops which are made of *top-leather*. The only difference in treatment, that less oil should be used, or rather a lighter coating applied—and it should be washed off *before drying in*, top-leather being thin and much more penetrable than harness. Of course the mixture would not answer for enameled leather, of which some carriage tops are constructed.—*Selected.*

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Root Crops.—A striking feature in the present state of our agriculture, is neglect of the root crops as farm products. In some sections, it is true, a few fields of carrots, turnips, onions, or mangelwurtzel, are to be found, but they are not often seen to any extent, and for the most part, farmers raise them only in sufficient quantites to supply the family wants. It seems impossible that this neglect can arise from ignorance of the value of root crops as food for cattle. It is well known that the fattening properties of some of the roots, are very considerable, as is also the effect which they have in increasing the quantity of milk given, while their occasional substitution for the fodder more commonly given to stock during the winter, is admitted to be conducive to the health of the animal.

Perhaps it may be more properly ascribed to the labor required for their successful cultivation. In many instances, this is, undoubtedly, a serious obstacle, and yet if these crops were fully to appreciated, this objection would not be allowed to outweigh their advantages.

The amount of nourishment contained in the various articles used as food for cattle, is now tolerably well ascertained; though from the nature of things, as the difference in climate and temperature in which they come to maturity, and other cause, there must of course, still be some degree of uncertainty about it. From recent experiment, very carefully and skilfully made, it appears that two pounds of raw potatoes afford as much nourishment as one pound of good English hay. So three and two-fifths pounds of beets, or three and one-half pounds of ruta bagas with the leaves, or three pounds of carrots, are of the same value as one pound of the same hay. Thus, if we suppose an animal to require twenty-four pounds of hay per day, the place of half that amount of hay, or twelve pounds, might be supplied by twenty-four pounds of raw potatoes, or thirty pounds of carrots, or forty-two pounds of ruta-bagas with the leaves, or by sixty pounds of turnips with the leaves; with either of these equivalents, the animal would be equally well fed. This calculation, of course, suppose the articles used to be of ordinarily good quality.

If these nutritive equivalents are correctly stated, it would be easy to show the economy of a more extended use of root crops.

If we assume eigteen tons, or about seven hundred bushels of carrots as the product of an acre, which for a good season, and with good culture is a small yield, we have from this one acre, what is equivalent to six tons of hay. Somewhat similar results will be shown by an examination of the relative value of hay and other roots. Land devoted to carrots would undoubtedly require more labor than the same extent of mowing land; and yet, with the aid of boys in weeding, or with the simple and cheap implement, called the onion weeder, so admirably contrived as to enable the operator to weed carefully and well, a large extent may be cultivated at comparatively little cost.—*Report of Sec. of Mass. Board of Agriculture.*

◆

What Came out of the Bag.—A gentleman residing a few miles out of the city, who has a particular affection for fresh "johnny cake," sent his son to mill, a week or two ago with several bags of corn—the incipient steps towards a future breakfast. On his way to the mill the lad had the misfortune to lose one of the bags—which fact was duly communicated to his father. The old gentleman, therefore, sent a dispatch to the miller, informing him that part of the load was lost on its way to his domains, and that when any bag marked with his name should be brought in—as he had reason to suppose would be the case—it must be returned.

Some days after, our friend proceeded to the mill, in order to ascertain if the truant had been discovered. On arriving there, he was met by the miller, who informed him that the bags had come in, been retained, and were now awaiting his orders. "Bags?" said the gentleman—by how many have you found." "Five," was the reply. "Five!" thundered the astonished lover of corncake, "why I only lost one." "Can't help it," says the other, "there are five here that are marked with your name." Ocular proof satisfied the inquirer that the mathematics of "Rob the Grinder," were correct, and bidding him to await the sequel,

"Home goes the parson
Home goes he,"

where he related the singular circumstance to his other self. With a burst of good old Connecticut laughter, she informed him that during his absence, some time before, she had loaned a number of his bags to different neighbors, whose grists had thus been summarily vetoed if not confiscated. It took the good old gentleman several days to make apologies and fix matters all right again.

There are several ways of "getting the sack." This is another.—*Sun.*

From the Soil of the South.

CULTIVATION OF THE GROUND PEA.

Messrs. Editors: Now I will give you my mode of cultivating the Ground Pea, which you may give to your readers or not, as you may think proper. It may be proper to state here that the land planted last year was loose sandy land, too thin to produce more than ten bushels corn per acre under the most favorable circumstances. This was prepared as if for cotton, the rows being three feet apart—good land three and a half feet would be better. Having bedded the land and hulled the peas, the beds were opened with a scooter plow, the plow-boy walking immediately behind the plow so as to guide the dropper, who succeeds him and drops two seed in each foot print. In this way you secure regular distances between the vines. The board or harrow follows and covers the peas. In three weeks they will need work, when you will run a scooter plow next the vines, inclining it so as to loosen the soil as nearly under them as you can, without tearing them up. Break out the middles with straight shovels; then follow with hoes, cleaning out the young grass and pulling dirt *to* the vines—not *on* them. They will require one or two more plowings with a sweep according to the season (mine got but one) and but one more hoeing. Thus I cultivated ten acres on which were fattened over one hundred head of hogs. Of these, forty-seven are in the smoke-house.

When the first frost makes its appearance is the proper time to commence gathering for seed. The hogs are then turned in from the corn field and then suffered to remain until first of December, when those intended for meat are enclosed in pens and fed on corn merely to "harden the lard." Last year, two of my sows lost their pigs, whether occasioned by the ground peas, I am unable to say, as it never occurred before. I cannot say therefore that it would be unwise to give breeders the privilege of the patch. My hogs were turned upon the ground peas on the 30th October, and on the 6th December, the meat hogs were put in pens and fed on corn until the 19th December, when they were killed. They were in fine order. I did not weigh them on the 30th of October, but I am satisfied they gained more than a pound a day while on the ground pea. The same land would not have yielded last year, dry as it was, 50 bushels of corn, and it certainly would have required two hundred bushels of corn to have put the same hogs in the condition mine were in on the 6th of December. The vines doubtless are fine food for cows if properly cured. I shall make the experiment the present year.

I am an advocate for ground pea culture then, because they require less work than corn and yield more abundantly; because they are fed from the field; because they do not kill hogs; because they make more fat than corn in the same time and at less cost; and finally because they make sweeter and more juicy meat than any other food you can make.

Yours truly,

FROG LEVEL.

Artesia, Dallas Co., Feb., 185!.

SOWING CORN FOR FODDER.

As spring will soon be upon us, it is reasonable to suppose that every practical farmer is laying out certain grounds for his various crops; and as the period in the history of agriculture has arrived when all farmers must economize, by putting in those crops which will most remunerate him for his labor, as a means to effect this end, allow me to call the attention of practical agriculturists to the subject of sowing corn for fodder.

Last spring, I sowed about three acres of corn, intending to cut it green for soiling, but owing to the favorableness of the season for grass, but one acre was cut—the other two were cured for fodder. I have no doubt the produce from the one acre was equal to ten acres of ordinary grass made into hay. The best way to raise it, is to plow and harrow the ground as if for corn or potatoes; then start the plow and let a man or boy follow and drop every other furrow until the piece of ground is completed; then run the roller over it and it needs no more attention. We put three and a half bushels of seed to the acre. I would prefer putting it on a piece of ground that was not to be seeded, in order to save labor in the curing. All that would be necessrry is to cut and shock as other corn, and let it stand until dry, then bind it in sheaves and haul it to the barn or shed, and *salt* it. Cattle eat it with great avidity, and milk better than when fed on hay. We purpose putting down from ten to fifteen acres this spring, and calculate to save twofold by the operation. First, in curing hay there is almost always difficulty in procuring men even at the highest wages. Second, instead of mowing from forty to fifty acres we will have them for pasture, which does not impoverish the land like mowing. I think there is no crop which will pay better than sowed corn. Let our farmers try it.—*Delaware Republican.*

LOSS BY EXPORTING WHEAT.—THE editor of the *Farmer's Companion*, Detriot, has been making some calculations to show the loss to the farmer, by exporting wheat instead of flour. He calculates that of the 6,000,000 bushels of wheat annually produced in that State, 4,200,000 are exported, which would yield 37,800 tons of bran and shorts, which if kept at home and fed to cattle would add far more wealth to the State then it receives from the price obtained, because the withdrawal of so much of the material constituents of wheat from the soil will soon render it unproductive.

The analysis of bran shows that it contains:

	Per cent.
Starch, dextrine and sugar,	52 00
Sugar of liquorice,	1 00
Gluten, (flesh-forming,)	4 90
Fatty matter,	3 60
Woody matter,	9 70
Salts,	0 50
Water,	13 90
Aromatic,	3 40

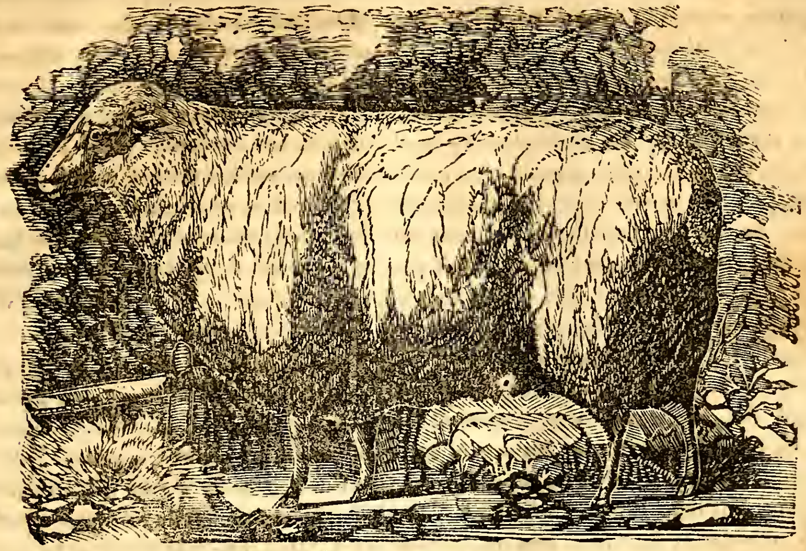
In some wheats the *ash* is as high as 7 per cent.

Now all these are as essentially valuable, as food, as the wheat itself; and for fattening much more so, the *oil* of wheat residing in the bran; *whole* wheat giving only about 1 per cent. of fatty matter, or oil. But the ash of bran consists chiefly of *phosphate of magnesia*, a very valuable salt both in food and as manure; while it is one of the rarest in the soil, one of the most expensive to restore, and without which wheat cannot come to maturity.

From these premises the editor argues the advantages that would accrue to the State by manufacturing the grain into flour at home instead of sending it abroad in the grain.

The arguement is a good one, and might be profitably extended a little further. Besides continuing the production of wheat, the consumption of bran would add to the amount of dairy products, and beef and pork, which in turn would also increase other farm products, till the amount to be exported would largely increase far beyond the value of the annual exports of wheat.

Now suppose all of these increased productions were consumed at home by the same class of mechanics that now consume the flour sent abroad, and instead of exporting wheat, or flour, or beef, or pork, the State should export the article manufactured by the hordes thus fed, what would be the result? *Tribune.*



COTSWOLD SHEEP.

From the Wool Grower.

GROW MORE WOOL.

Our own experience and observation have satisfied us that there is no kind of farming that is so generally profitable as raising sheep and wool. It matters not whether you are upon the bleak mountains of Vermont or in the fertile plains of Texas; upon the prairies of the West, or the now solitary hills and mountains of the South. Everywhere and anywhere the sheep will live and thrive, and with proper care pay more for the labor and capital invested than any other animal, or any other system of farming. It is one of the most useful and economical machineries which has been given us to convert the vegetation of the farm into money. Were it for the first time presented to us, we should consider the sheep one of the most wonderful animals nature has produced for the use of man. Its annual growth of wool, so admirably calculated for human clothing, and used in every portion of the globe—its skin and flesh, and many localitiies its milk, all serve for the necessaries of luxuries of man. There is no animal in which there is so little waste or so little loss. Of all other animals the cow comes nearest to the sheep in the profit it returns to the farmer, for if well cared for, it will pay for itself each year by the milk it yields and defray also, a portion of the cost of keeping. But the sheep, for at least seven years of its life, will give an annual fleece each year equal to the value of the carcass; and the yearly increase will be nearly or quite equal to the cost of keeping, giving as a general thing a profit of cent per cent.

Is there any branch of farming or any other legitimate business that will yield for a series of years a profit of ten per cent? We assume there is none. The very idea that profits of 50 per cent. would be realized in any branch of business, would set the whole capital of the country in motion. Farms would be sold, merchants would sell off their stocks, bankers close their banks, and indeed everybody who had money to invest would rush into this gold mine.

We aver, without fear of contradiction, in truth, that where any kind of farm animals can find subsistence, that sheep if properly attended to, will give a net profit on the investment of at least 50 per cent., and that with the ordinary management of farms, it will give some 20 to 40 per cent.

That there is no danger of overdoing the business we have shown repeatedly in previous numbers. The annual increase of population in the Union, requires the wool from three millions of sheep, so that to clothe the increased population would require an annual increase of sheep equal to *four millions.*

But when we come to consider that there is now an annual deficiency of over *seventy millions pounds*, there can be no doubt that the wool-growing is the most stable pursuit that can be engaged in. We cannot glut the market, nor will there be any long time that the market will be depressed beyond the profitable point of production. On the contrary, it is certain that no farm product goes less often below this point than wool. It has long been a source of constant wonder to us, that so many farmers in Ohio and the Western States neglected the sheep, for the very precarious business of grain growing. Every year will give them a crop of wool if they but take care of their sheep. But there is no certainty for wheat, prepare the good ground ever so well. If we have been rightly informed, the wheat raised in the West, has cost the farmer more than he has obtained for it in the market. Too much dependence has been placed upon this most uncertain and expensive crop. We have tried wheat growing, upon probably, as good a wheat farm as can be found in Western New York; and we have also tried sheep upon the same farm, and we are free to confess that although we have a good market at our own door, yet we can raise a given amount of money quicker, and much easier with a flock of sheep than with wheat. But we find it well to raise both sheep and wheat, as by that means we find we get a better profit than to be confined to either alone, while indeed most land, that can be plowed, is the better to come at regular, and not long, periods under the plow. With us, and in this region, four years is as long as it proves profitable to leave land to grass. Very few resort to naked fallows. Some mow their clover early and let it grow till August, when it is turned under, cultivated, and sown to wheat; others mow the first year and pasture with sheep the second, and then plow. Every good farmer keeps a few sheep at least. Very many who have been in the habit of putting up a large quantity of pork for summer use, now select out a few wethers, and give them extra keep and make their summer meat of mutton—decidedly the most healthful that can be used fresh, and thus realize the money for their pork fresh.

The inducements to grow more wool are, a sure market, less fluctuation from the point of profitable production than any farm product, a larger interest or profit on the capital invested than any other business, therefore the best business as a general thing the farmer can follow.

T. C. PETTERS.

◆

A Good One.—At a dancing party not a hundred miles from here, one of the beaux got a little corned.—He, of course felt himself as good as any body. Asking a young lady who lives in the vicinity of a grist-mill to dance, she declined; whereupon he instituted a parley, remarking, 'that if he was not good enough to dance with her, he would come down to the mill and be ground over.' 'Come down,' said the lady, 'but you will recollect that the first process in grinding will be to run you through the *smut machine.*'

◆

Indian Meal Dough Nuts.—A tea-cup and a half of boiling milk, poured on two tea-cups of Indian meal. When it is cool add two tea-cups of wheat, flour, one tea-cup of butter, one and a half of sugar, one of yeast, and two eggs, with a tablespoonful of cinnamon or a grated nutmeg. If not sufficiently stiff, add equal portions of wheat and Indian meal. Let it rise very light. Roll it about half an inch thick, and cut it into small diamond-shaped cakes, and boil them in lard.

◆

Egg Dumplings.—Make a batter of a [illegible] milk, two well-beaten eggs, a tea apoo[illegible] salt, and flour enough to make a batter as thick as for pound-cake; have a clean saucepan of boiling water, let the water boil fast, drop in the batter by the tablespoonful; four or five minutes will boil them; take them with a skimmer on a dish, put a bit of butter and pepper over, and serve with boiled or cold meat; for a little desert, put batter and grated nutmeg, with syrup or sugar over.

THE ECONOMY OF PORK RASING.

Much is said, now-a-days about pork raising. Indeed, some old farmers say that the "Suffolks" are but another chapter of the Merino sheep, Morus-Multicaultis and cochin-go-rooster speculations, with which so many verdant ones have been "burned, But no one can deny that the subject is one of great interest to every one who owns land enough to build a pig-pen upon. And we find so much good, sound sense in an article written by a Pennsylvania farmer, that we copy it entire. The season may be over for *sales*, but now is the time to plan for next year's operations, and our New Castle friend gives excellent advice.

1. *The Best Breeds.*—A reverend gentleman, in a country district, the excellence of whose hogs was well known, was asked on his way to his pen, what breed his hogs were of? His answer contains much sound philosophy on this vexed question of breeds. From the basket on his arm he threw an ear of corn into his pen, and replied :—"That's the breed my hogs are of."—The moral is, that unthrifty farming cannot repair its deficiencies by relying on the best of breeds ; and the man that would economically fatten his aniwal, however good its kind, must study its comfort in the matter of food, and, we must add, shelter. Yet some varieties are certainly better, and some worse, In general it is best to secure pigs of *approved* breeds watever they may be, pure, or if crossed, crossed only with other best varieties. Berkshire, Leicesters, Chinas, Graziers and Waburns are approved sorts. Also, Essex, Suffolk and Bedford breeds. [illegible] their purity or crossed, the old vora- the [illegible] breed with which our forefathers were [illegible] and whose race is not yet extinct, a sad [illegible] of remaining barbarism in our midst in the nineteenth century. If your neighbors have such, avoid alliances with them. "Those roaming hordes of razor-backed alligators," as Mr. George, of Jefferson county, O., graphically declares of them, "will manage to steal a march not only on you, but on their less amorous male competitors of the China, or other breeds, and thus transmit their own depravity in their offspring representatives, and produce a ruination of your plans. One of the greatest obstacles to improvement arises from these hordes of worthless animals turned out by their owners, often with small profit to both, and almost an absolute curse to the whole neighborhood." The picture is true to the very life.

2. *Is it most advantageous to keep hogs fat all the time?*—Mr. Phinney, of Lexington, Mass., a pork-raiser of the very best experience, settles the question fully :—"If intended for killing at the age of nine or ten months, they should be full fed all the time, and kept as fat as possible, If to be killed at fifteen or eighteen months old, they should not be made very fat for the first ten or swelve months. The reason is obvious.—Those that are short-fed are more active, and this activity causes the muscles to enlarge and the frame to spread ; while very fat pigs become inactive, and, like indolent bipeds, neither work for their own benefit nor that of others." But we must guard against the extreme of withholding food so as to stunt the growth. The growing animal that is not immediately designed for the knife, should be kept in thrifty, but not in fat condition.

3. *The age at which it is most profitable to kill* is an important item of economy. Some breeds mature sooner than others : But of them all it is true that there is much saved by killing before maturity, and especially in slaughtering spring pigs the following winter, say at eight or ten months old. The saving is not merely in avoiding the cost of an extra winter's feeding, weich is more expensive than summer feeding, but in the obvious fact, that when an animal arrives at full growth, though not increasing in weight, he does not cease to eat, and of course as he nears this period, his growth is much slower in proportion to the amount of food, than when younger. An experienced gentleman, John Lowell, says, as the result of twenty years' experience, that young pigs of twenty or thrity pounds weight, will give nearly double as many pounds in six months feeding, as shoats of six months old, weighing one hundred pounds :—"I have taken," says he, "two pigs, six months old, each weighing one hundred pounds, and could never, between May and November, get

them above one hundred and eighty pounds each. I have taken three pigs of thirty pounds each, and, on the same food, they would weigh from one hundred and seventy to one hundred and eighty pounds each, in the same period." The above statements are from facts collected with care by Henry Colman, in a report as Commissioner of the Agricultural Survey of Massachusetts, and published in the Patent office Report of the United States, for 1843. They fully settle the question which is the most profitable age, at which pigs should be slaughtered.

4. *Management of food and shelter are important.*—A good clover pasture affords the cheapest summer supply. It should be convenint to the house, allow the pigs to be fed also with the refuse milk of the dairy, and swill from the kitchen. When there is no such pasture, no more pigs should be kept than can be kept on the waste of the kitchen. It will not pay to feed pigs here on articles at the market prices. The peculiar economy of pig-raising lies in the fact, that although the pig is a great eater, he will eat what nothing else will, and which would, therefore, be lost. But, four or six months before killing, he should be penned, and a short time before killing fed on corn. Though corn may occasionally be fed in the ear, it is better ordinarily to be ground, and then fully scalded ro boiled, in which condition it may be mixed with boiled roots or other reee. You may save, in general, however, by boiling your corn, when shelled, without grinding; it will answer the same end. Have your pens so constructed that your pigs cannot root, as fat pigs are often injured by rooting, and, if possible, have fresh, clean water in their yard for them to wallow in during the summer. Let them also be warm and quiet during the period of fattening, so as to induce sleep, and, when they are in their beds, by no means disturb them. Give them occaionlly rotten wood and charcoal, and frequently put both wood-ashes and salt on their food.

5. *In respect to Breeding*, do not let the boar run with your stock; and do not keep your sows at any time too fat, in which condition they are not likely to breed. It is advantageous to have a litter from a young sow at twelve or fourteen months old, in time to fatten her for fall or winter killing: but it should be remembered that her second and third litteas will most likely be bettea than the first.

These remarks on economical pork-raising do not apply to Indiana, and other rich corn States of the West, where pork is raised wholesale, as the most available way of bringing the produce of the farm into the market. With those States we cannot compete, and we repeat that to make pork-raising profitable in the ordinary way of heuse-keeping or farming, but little food must be bought for them, and but little fed to them, when it can be sold for the present good prices in the Middle and Eastern States. B.

New Castle, Pa., 1853.

—*N. E. Cultivator.*

HINTS TO AGENTS.

BY AN AGENT.

Such is the antipathy to agricultural papers, and to every thing that has any resemblance to book farming, among the farming community, that if an agent approaches one of these self-conceited bigots, (*alias*, *blind ignoramus*,) he is liable to be *insulted*, to be *sneered* at, or *laughed* at, or something worse. But a well-bred, refined farmer, one need never fear to approach at any time, and to ask him to subscribe for an agricultural paper.

Almost every man, if he has not become a confirmed *ass*, has some *ruling passion*—*some particular hobby* peculiar to himself, by which, if one understands his Ps and Qs, he may "please him with a feather, or tickle him with a straw."

I apply this principle more or less, when I solicit subscribers to agricultural papers. When I have any doubts about getting a man to subcribe, if I do not already *know* where to touch him, I say nothing about my main business, but go and look at his cattle, horses, hogs, or whatever he has, and by talking a few moments, I am able to *sound* him. One thing will lead to another, and by and by I *take* him.

There is Mr. A., a man that will not *look* into an agricultural paper. He cares for nobody.

But his son—I'll get him to take the Farmer. "Bub," says I, "let us go and see your steers," or your colt, or something that he calls his. The lad is pleased. I now have several of the best numbers of the Farmer ready, and present them in the most attractive manner. There are some splendid cattle in the Farmer, and the boy's taste is inclined to nice cattle. I talk about the Farmer, and the fine cattle that it tells about, &c. "I want to take it, but have no money." Now, father, I'm ready for you. I have a neat little paper here, which your son wants, but he has no money. "He knows I always give him money whenever he wants it, but he's a foolish fellow to pay it out for that purpose." "Well, you know parents must try to please sons sometimes; and perhaps he will learn something in this about steers, for I see he is rearing and training a fine yoke." This pleases the father, and he concludes to let the foolish fellow take it.

Mr. B. is a blacksmith—but will not pay his money for the Farmer. Now, I want a horse shod, and expect to pay the cash for it. Mr. B. if you will do this work, I'll send you the Northern Farmer for so much, and pay the balance in cash. Rather than lose the balance, he will do it.

I want some grain, some seed, some fowls, or a pig, of Mr. C.; and when I am bargaining for it, tell him I'll give him so much, and send him the Northern Farmer. Rather than not sell the article, he will take it. I can do nothing in any way with Mr. D. He will treat his *best friend* unbecomingly, if he should ask him to subscribe for an agricultural paper. But he thinks much of educating his children; and of having them appear respectable; and he loves to talk of great men, &c. He has a son that he desires to make something of. "Friend D. are you intending to keep your son in school the next term"—Talk of the importance of giving our children a good education, a good education, &c.—"Washington, the father of his country, was once a lad, like your boy. He was a farmer also. But see to what posts of honor, eminence and distinction he rose by education! Farmers are no longer looked upon as serfs. Farmers now constitute one of the most honorable and respectable classes of American citizens. If I had a son like yours, my first efforts would be to educate him."

"I intended to, but I must have him this summer to help me."

"Well, he can learn a great deal at home, if he is furnished with books and facilities; and, now, let me tell you a good way to induce him to improve his leisure moments in reading, and perhaps it may be the means of keeping him out of bad company; for yod know our young men are surrounded with temptations on *every side*. Here is a useful little paper—(mention its leading features, &c,)—which would just suit him. Now, the price is but a few cents—and who would not willingly pay dollars, many times, if a son or daughter could be kept from improper associates?—and if you will subscribe for it, *have it come in his name;* I'll assure you he will think a deal of it; and besides, there may be some little article in it, which will be worth *four times* the subscription money, to *yourself* or family,"

"I'll take it," he replies, "for I want him to know that there are many great men who are farmers."

I can do nothing with Mr. E. Agents have often been ill-treated by him I'll try the woman. "Rosa, where did you get those beautiful books, on your parlor table? That is what I like to see. I like to see people, in these days of intelligence and refinement, pay some attention to education. It is *necessary* now days, in order to secure a respectable standing in society, to act as if we had a *mind* that needs cultivating, as well as a body that needs clothing. And there is so much useful reading now. Here, Rosa, is a beautiful book, and useful too, which you want on your table. (Show a bound volume of the Northern Farmer.) There is the Ladies' department. Now, you had to write compositions at the Academy; and Sally West had some of her's printed; and you write as well as she. Here is a good opportunity for you. Send the editor a communication on butter making or something else. There are some valuable recipes too. You have seen the time, I dare say, when you would have given twice the price of this for a good recipe."

"Yes, indeed," she replies. "Subscribe for this, and see what a beautiful recipe book you will have." "I'll go and ask father for some money, for he never refuses to give me what I ask him for"

Neighbor F. ("whose god is his belly," and his ruling passion is to have good victuals.)—"I love good bacon, good pudding and cake and such like; and just look here, what a long list of valuable receipes for cooking. (Showing a bound volume of the Farmer.) Who would not willingly pay twenty-five cents, or even fifty cents for a single recipe, when he feels unwell, for some dish of soup, or something for sick people? And see what a *book* too, for twenty-five cents!"—"I'll subscribe for that—it's worth that for waste paper, if nothing else."

Never exhibit a *single No.*, when a bound volume can be had. Tumble the leaves over hastily—show the pictures of cattle, &c., to men who like to see neat cattle—plans of houses and barns, to him who is expecting to build soon—the Bee department to him who likes honey—in short, have something always ready for every man. This course I have ever pursued, and if one argument fails I try another.

A Cheap Cough Mixture.—Take three cents worth of liquorice, and three cents worth of gum arabic. put them into a quart of warm water, and simmer them until thoroughly dissolved; then add three cents worth of paregoric, and a like quantity of antimonial wine. Let it cool; and sip whenever the cough is troublesome. It is pleasant, cheap, and good, and will remove a common cough from recent cold. Its cost is fifteen cents.

Corn Fritters.—One tea-cupful of milk, three eggs, one pint of green corn grated, a little salt, as much flour as will form a batter. Beat the eggs, the yolks and whites separate. To the yolks of the eggs add the corn, salt, milk, and flour enough to form a batter, beat the whole very hard, then stir in the whites, and drop the batter, a spoonful at a time, into hot lard, and fry them on both sides of a light brown color.

RUST IN WHEAT PREVENTED BY DRAINING.

L. Tucker,—Under this head, in your eighteenth number, are some suggestions from a farmer in the western part of this State.

Observation and experience have convinced me that *too much moisture* in the soil is the cause of wheat being thrown out by frost, and that *thorough under draining*, is the only remedy.

Every observing farmer knows that too much moisture is one *great* cause, if not the *only* cause of rust in wheat; consequently the drier the soil is, the less liable the wheat is to be injured by rust. Thorough under draining is the remedy.

The writer says:—"When I moved to this country, I had no idea that our land would ever need draining, but this was when the ground was full of roots. Since these rotted out, there has been a settling down of the soil, &c., * * * * I only know that I have fields which I would not now think of sowing with wheat, but to which purpose I should have made no objection ten years ago."

Is not this the experience of every farmer living *south of the lime ridge or ledge*, in all the wheat growing sections of this State? While *north of that ridge*, no such results are experienced.

This is my experience, having formerly owned a farm south of the ridge, on which wet places each succeeding year were found, and though under draining was extensively used, and with good effects, still these wet places each year called for an additional drain. Becoming tired of this, I sold that and bought a farm *north* of the lime ridge, and am exempt from the former difficulty.

Lands north of the ridge, which are *naturally* wet, should be drained, but those which were dry *before* cultivation, remain so *after* it. This is my observation and experience. Does the observation and experience of others corroborate it.—*Northern Farmer.*

M.

Fairmount, N. Y., April 7, 1853.

THE FARMER'S JOURNAL.

RALEIGH, N. C., APRIL, 1854.

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Col. W. H. Tripp, Beaufort County, N. C.

EDITOR'S INTRODUCTION.

The time has again rolled around for the beginning of a new volume of the Farmer's Journal: and according to a law which custom has established, we once more introduce ourself to the farmers of North Carolina, as the conductor of the only paper in the State devoted solely to their interest. As evidence of the good which has already resulted from our labors, we can proudly point to the many fields which are now being made fertile, that were before our work began, given up to the persimmon and pine sapling, being regarded as worthless. The task, though arduous, has at the same time a pleasant one, for the reason that we have seen our native State, which has been laughed at and ridiculed, entering fairly upon the march of agricultural improvement, which has had the effect to give new life and impulse to the various interests among us. The occupation of the farmer which hitherto has been regarded as low and degraded, is beginning to assume its proper position among the various avocations in which men are employed. It is no longer thought to be useless expenditure of money and time to educate those who desire to become farmers. The beauties which science has shed upon agriculture has given the young men of our State a thirst for its pleasures, and the manual labor which by many was regarded as all that was necessary for the farmer to perform, is now regarded as but a small item in the agrigate. Let us only reflect for a moment, and ask ourselves the question: what has there been in the system of agriculture generally practiced by our farmers heretofore, to attract the attention of the man of education, the continued planting the same fields year after year in the same crop, and reaping less every harvest, does not afford reflection of a pleasing nature. But a new era has occured in the history of agriculture in our State, farmers are associating themselves together in bodies for the discussion of such subjects as legitimately belong to their profession, and the time is even now at hand, when the farmer who repulses information and clings to the stakes which his father drove will find that he is loosing cast among his brothers in the profession. We say once more to the farmers of North Carolina, divest yourselves of prejudice, and enter at once upon the road to agricultural improvement, and let the next State Fair plainly prove that you have been up and doing. We shall still continue to discharge our duty towards you faithfully leaving nothing undone which will tend to advance the mother interest of our State. But while we are discharging our duty thus, truly there is one for you to perform: we ask you again to contribute to the columns of our paper, the results of your experiments, though you may have failed in accomplishing what you expected, it will be of as much service as though you had succeeded, it will caution others. In the beginning of this volume of the Farmer's Journal, we have, we flatter ourselves, furnished the farmers of the Old North State, such a paper as they must feel proud of, and when we tell them that we are still resolved to make it better, is there a single reader who will not be moved to use his influence in his neighborhood to get those five names. We conclude by saying, that though we may not attain to success, we are resolved to deserve it.

FARMERS PREPARE YOUR LANDS PROPERLY FOR YOUB CROPS.

There is nothing in which our farmers generally are so very deficient as in the proper preparation of their lands for the reception of their crops. There are many farmers who continue the miserable practice of only making what is called a list, by throwing up three furrows when they design to cultivate corn or cotton. This is they say, for the reason, that they have not the time to give their fields a thorough plowing, but the true reason is that they are endeavoring to cultivate more land than they can do justice to, and it must be slighted in this manner, in order that they may accomplish their object. Many farmers plow their lands when they are too wet, and in this way an injury is inflicted upon them from which they do not recover from during the whole season. Where there is an suitable subsoil of good clay, a very decided advantage is to be derived from the use of the subsoil plow which will not be required to be used oftener than once in three years, or two at least. It is true that a good team is required to draw this plow, but what an easy matter it would be for two or more farmers, where neither has the team, to unite together and subsoil for each other. By the use of the subsoil plow, it is many times the case that the crop is furnished, the necessary mineral elements for its growth, which the surface soil has been deprived of by injudicious culture. Another advantage to be derived from subsoil plowing, is the moisture that is afforded the plant in a dry season, and also the means afforded the water, of passing through the soil, instead of remaining upon the surface, where the gasses escape to the atmosphere. But after these means for the preparation of lands are fully carried out there is yet an implement which confers very great benefit to the crops, which has been too much neglected by our farmers, we mean the harrow. The illustrious father of our country, who was great as a farmer as well as a Statesman and warrior, enjoined very strictly upon his superintendents, the use of the harrow in the preparation of his lands, though in this he was a long way ahead of those who lived when he died. The better pulverised the soil is, the sooner will the crops grow and the more even will the culture be. The farmer should so thoroughly prepare his lands in the winter and spring, before planting his crops, that he will have but little difficulty in their cuttivation. In this too, his team will receive a great benefit, for when the weather is hot, they will have but light work to perform, when compared with what they would have to do if this proper preparation of the land was not performed.

THE ANALYSIS OF SOILS.

We publish below, extracts from three letters which were kindly furnished us in relation to analysis of soils, made by us during the summer of 1852. We ask, what better testimony can farmers wish in relation to the advantages to be derived from an analysis of their soils, than is furnished in these three letters. Mr. James W. Newbold, whose letter we publish almost entire, on account of the interest it must excite, is a gentleman who stands pre-eminently high in his county, in every respect, as a farmer and a citizen. Though he did not have the golden opportunities in early life, which others have had, yet it will be seen from this letter, that he has spent his time well. Mr. Parker is a most excellent farmer and a worthy gentleman. He belongs to the society of Friends, among whom we have found some of the best farmers in the State. Mr. Jones expresses in his letter only what we heard several of his neighbors also testify to, and he is taking the lead in agricultural improvement in his county—

Dr. Tompkins:

In relation to the analysis of my soil made, I feel myself incompetent to do the subject justice. If you were acquainted with my history, and the difficulties under which I labored in receiving even the rudiments of a common education, you would conclude at once that handling the spade was better suited to my capacity than the pen. Being wholly unaccustomed to writing, I feel myself incompetent to pen any thing worthy of public attention, and it is with the utmost diffidence that I undertake to give you a faint idea of the advantages resulting to me from the analysis of soil which you made for me. In the first place I am entirely satisfied with the result of the analysis and the experiment was made according to your directions, though it could not be fairly tested on account of extreme dought in the early part of the season, and the extreme wet weather in the latter part. Notwithstanding, the crop from the experiment was a good one, producing three times as much as similar land around it,(for I measured it,) though it had the same cultivation in every respect, except manuring. In the second place, the analysis forms a new era in my agricultural operations—for the plain reason, that it has put me to thinking, and the result of that thought, is that I have subsoiled ten acres of land for wheat last fall, and the wheat is better on these ten acres than on land along side of it, which was plowed only with the surface plow, and received an application of 100 lbs. of Peruvian Guano besides.

You may have been well paid for the analysis, yet I look upon it as invaluable to me. I have read somewhere that he that causes two blades of grass to grow where only one grew before, does his country more service than all the politicians in the land. This sentiment may be very appropriately applied to you, sir, who has caused many barren spots to blossom as the rose, still some are too envious to acknowledge your merit.

You have not given the article which you promised on the management of negroes, the mismanagement of whom in this section is a great hindrance to the well-being of the negro as well as to the success of the farmer. There is another great evil which is abroad in our State, the propensity of farmers to cultivate too much land, and hence it is that we see scattered over the country large tracts of unproductive land, which, under proper cultivation might yield a rich harvest. Not only the dictates of common sense, but facts drawn from experience are loudly calling upon farmers to own less land and cultivate it better. I wish this admonition could be sounded into the ears of the whole farming community throughout the State until a complete revolution was brought about. The secret of success in farming is the thorough cultivation of a small piece of land, which, when well manured brings a large crop. Wherever you cast your eyes one error prevails, a great deal of money is invested in lands, and but little is employed in their cultivation. It is indeed sad, to see a large farmer pride himself upon the number of acres he owns, when he is undertaking to cultivate his land without the means, such a man has chalked out for himself a hard lot, and enters upon a state of servitude worse than Egyptian bondage. His work is never accomplished, he toils at all hours, yet nothing is half done; he has no time to accomplish any thing thoroughly, his house is out of repair, his barn is in ruins, his cattle poor, his fences sorry, his fields over run with bushes and briers, and acres of land, which under proper tillage might produce good crops which is now but little removed from barrenness. What an unhappy being must the owner of such a farm be, he has no time for recreation, no time to improve his mind, but is doomed to the tread mill during his life. His spirits are depressed, the worm of discontent is constantly gnawing at his heart, he has no pleasant associations with the past, the present is full of anxiety and a dark cloud hangs over the future, such a man has but little, I think, to pride himself upon in his large possessions. Strange as it may appear in nine cases out of ten, a man of this character would greatly enrich himself by getting clear of half what he has got.

I deem it proper to say that you can manage this production as you would a pile of half rotten potatoes, if worth culling, you can do so, otherwise cast the whole to the hogs.

Very truly, your friend,

JAMES W. NEWBOLD.

Dr. Tompkins, *Dear Sir :*—Thou queries about my experiment—the part No. 1, thou analyzed, I put the compost heap on according to thy direction and tended some by the side of it without manure. The first averaged eight barrels per acre, the second four. I think if the season had been favorable, the manured part would have produced ten barrels. I feel well satisfied that the crops in this neighborhood were cut off one-fourth or more. I am satisfied with the experiment made after thy direction. It will pay well. With best wishes for thy success,

I am thy friend,

JAS. R. PARKER.

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DEBURGH'S SUPER PHOSPHATE OF LIME.

This highly valuable fertiliser is receiving much attention from the farmers of the northern States, and the results of practical experiment made with it, clearly entitle it to the confidence of the farmers of our State. We are using it upon a variety of crops during the present season, and will take pleasure in giving our readers, at a proper time, the result of our experiments. The cost per lb., is the same as that of Peruvian guano, though a larger quantity is required per acre, though it must be of longer last than guano, for the reason that the volatile principles are to a great extent, fixed. A genuine article of this fertiliser may be had at the Agricultural Warehouse of Messrs. Borum & Fisher, of Norfolk, Va., whose advertisement appears in this number of our paper. These gentlemen are agents for the sale of the Super Phosphate of lime, and will supply those who wish it. The quantity per acre to be used is five hundred pounds, without being mixed with anything else. Those who have used it most successfully recommend the application to be made broad east as near the seed of the crop as possible. We think that we may safely recommend it to our readers, for the reason that we have seen an Analysis of it made by that emminent chemist of Baltimore, Dr. Stewart, who speaks of it in the highest terms. The great secret of suceess in its preparation is the use of the proper quantity of the elements which compose it, either too much or too little of them would destroy the value of the compound.

ERECTION OF BUILDINGS ON THE STATE FAIR GROUNDS.

The Committee of Arrangements will proceed immediately to the erection of more buildings upon the State Fair Grounds, which will be very extensive, with a view to their perminency. Several stalls for stock will be added, and we may say that those who visited the first fair, last fall, will scarcely be able to recognize the grounds. Farmers and mechanics, all, get your specimens ready in time, and let them be of the very best kind, for Old Rip is fully awake, and in his age of progress he will not be willing to see his children outdone.

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MEXICAN GUANO.

We are indebted to Messrs. Leigh & Son, of Norfolk, Va., for a specimen of this fertilizer, which is coming into use more than heretofore. A combinatian of the Mexican and Peruvian guano, serves a better purpose according to the experience of some practical farmers, than either of the two applied singly. The Mexican containing as it does, a larger quantity of the phosphates than the Peruvian, must be more perminent in its effect. Persons wishing a good article of this fertiliser can obtain from the gentlemen alluded to above.

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SHEEP HUSBANDRY.

We publish, in this number of the Journal an article upon the subject of wool growing, which will be read with interest. We agree with Col. Clark, and J. F. F., of Rowan, in relation to the necessity of our next legislature taking some decisive step for the protection of the raisers of sheep, from the ravages of the many useless curs which are to be found over our State.

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LIST OF PREMIUMS.

We shall in our next No. lay before our raaders, the list of premiums to be awarded at the next State Fair, though we have not received it yet, still we will take the responsibility of saying that premiums will be offered for the same articles as before, with some additions, and they will, of course, be larger.

BRAHMA POOTRA HEN AND CHICK.

The above cut is a very excellent representation of a Brahma Pootra hen and chick, which will interest those of our readers who are fond of raising fowls. The Brahma Pootra fowl stands very high with poultry keepers, they are noted for their size and beauty, and they are the best layers, and produce the largest eggs of any other fowl in the world. They are remarkably quiet in their disposition ; a fence three feet high will keep them where you wish to confine them. These fowls are bred from the pure stock free from any mixture, by Mr. George Smith, of Valley Falls, R. I., a part of whose stock we have had the pleasure of seeing in the yard of John C. Partridge, Esq., of this city, who has some fine specimens of the various kinds of improved fowls of several varieties. We have no doubt that Mr. Partridge will, at our next Fair, make a fine exhibition of fowls. He has a cock 6 1-2 months old, weighing 11 lbs, and a hen of the some stock, 8 months old, weighing 9 lbs. There is a marked advantage in buying fowls as well as cattle and other stock, raised in the climate where you wish to continue them. We assure those who wish to purchase Brahmas Shanghaes, and other varieties that if they buy them from our friend, Mr. Partridge, they will get the genuine stock of the kind they wish, for he takes the precaution to keep his fowls in different lots and does not allow them to mix together.—Ed.

OUR BOOK TABLE.

We are indebted to the Hon. Thomas Ruffin, a member of Congress from this State, for a neat copy of the Census Report for 1850.—There is to be derived from this book such information as will prove of value and interest to men of every branch of business in the country.

We tender our thanks to the publishers, for a copy of a work upon the cultivation of the grape and strawberry, by Robert Buchanan and N. Longworth, both of whom are well known as practical as well as stientific men. This work has just entered upon the fifth edition which is good evidence of its popularity.

EDITOR'S TABLE.

Working Farmer, edited by Professor Mapes. This valuable work has just entered upon its sixth volume, and we feel gtatified to say that there is not an Agricultural paper in the whole country that is edited with more ability than this.

The Soil of the South, published in Columbus, Ga., comes promptly to us filled with such knowledge as cannot fail to benefit those in the section of country where it is published. We wish the enterprising editors much success.

The Farmer and Artizan, published in Augustia, Me., pays us a monthly visit, and though from the State of Maine, a long way off, we invariably take from it many useful hints in regard to the culture of the products of our State.

The American Farmer, published in Baltimore, Md., is a highly valuable paper, and has deservedly a large list of subscribers, and is edited with much ability.

The Southern Weekly Post, published in Raleigh, N. C., is a very interesting family paper, and is not surpassed by any family paper in the Northorn States; and recent alterations in it calls loudly for a liberal patronage from the people of our state. We are pleased to notice that the able writer, Dr. James A. Waddell, will continue to contribute to its columns, Terms, $2 per. annum. Address Wm. D. Cooke, Raleigh, N. C.

Communications.

PROTECT THE SHEEP.

Mr. Editor: For several years past much has been said and much written on the subject of sheep husbandry in the United States, and I am glad to see from the article of J. F. F., from Rowan, in the last number of the Journal, that interest is being felt in the Old North State.

Actual experience supports the truthfulness of the oft repeated assertion, that sheep of a good size and equally fine texture of wool can be produced in the Middle States of the Union, as in any portion of the United States, and with as much or more advantage to the owner.

In the section of the State where I reside, such has heretofore been the course of the agriculturalist, in felling his forests, exhausting the land by injudicious tillage, then turning it out, as to render this section peculiarly adapted to sheep grazing.

Though we have not the rich hill sides, as in Rowan, ours being a Wheat and Tobacco county, that we can appropriate to sheep grazing, there is not a farm of any magnitude but has attached to it many broad acres of piney old field which in our mild climate is capable of supporting, well a large flock of sheep with no other care than a little feed, for perhaps, two months in the year, thus you see, Sir, at a glance, that were there no obstacles, the rearing of this valuable animal would be one of the most profitable adjuncts to agriculture.

I might speak of the diseases incident to this species of stock, but this would be unfair, first, because with the latitudinous range I would give them this cannot be avoided, and again in this locality so seldom does disease prove fatal additional care would scarcely repay the labour in saving of life, though doubtless it might do so in the improved quality and quantity of wool.

In support of this truth I will relate that a neighbor who began a few years ago with a small gang of sheep, now has a large flock, though they are but little cared for, and permitted to range in the old fields at will.

But, Mr. Editor, there is a fatality attendant on sheep husbandry in this locality (and I presume in every other,) which by united efforts we can avert, it is that with which I now have particularly to do, and which, Sir, together with J. F. F., I solicit the united aid of all men of all classes, and this I may do with propriety, because all are directly interested.

I have not the means of ascertaining the number of sheep or number of dogs in this county, but think I may be justified in asserting that the number of the latter is greater than the former, for, though many who own large flocks of sheep have but few dogs, there are a great number owning not a single sheep, who have many dogs, and perhaps, nine-tenths of these despredators belong to slaves or free persons of color, who have not at their command the necessary means of supporting them, consequently thefts are resorted to for this purpose by the owners, or the dogs are turned loose to pry for a living upon herds of sheep.

Many persons in this and adjoining counties desire to improve their stock, and some few have attempted it in despite of obstacles, but far the larger portion are retired.

A few neighbors with myself, had concluded to purchase of Col. Ware, of Va., some of his improved sheep upon which to commence the improvement of our own, but a short time before the order was to have been sent for them, the dogs broke into the improved, imported sheep of a neighbor and killed fourteen head. Thus at one fell swoop destroying more in real value than those dogs can ever benefit their owners, and put an end to our desires (at least for the present) for improved South Devons.

Now, in conclusion, let me join J. F. F. in asking that this subject may receive the due consideration of all classes of citizens, and of the State and County agricultural societies particularly, and of you, Mr. Editor, in whose views heretofore expressed on this subject I sincerely concur, I would ask continued support.

Respectfully,
HENRY J. B. CLARK.

Hertford Co., N. C., March 4, 1854.

Dr. Tompkins: It affords me a great deal of pleasure to think that I can thus soon speak of the benefits derived from reading the Farmer's Journal. I have been a reader of it ever since it has been published for the small sum of one dollar a year, and I believe that it has paid me one hundred dollars for each one I paid. I have been farming according to your directions after making the analysis of soil and marl, and in 1853, I tended less land, worked less force, and made one hundred barrels of corn more than I ever did before. I wish you great success, not only for your benefit, but for the benefit of the farmers of the State besides.

Sincerely your friend,
WM. JONES.

Agricultural Societies.

A REPORT

Read before the Caswell County Agricultural Society.

At the last meeting of the Caswell County Agricultural Society it was referred to this committee to take into consideration, and report thereon, the propriety of holding a Fair at Yanceyville during the present year.

A movement of this kind, on the part of the farmers and planters of this county, is so unusual and will lead to consequences so important, that it caused your committee to give the matter a deep and thorough consideration; after hearing the objections against and the reasons for it, they have come to the conclusion that the interest of all of our citizens would be promoted by holding a Fair at Yanceyville for the exhibition of the manufactures of the machine, the skill of the artizan and the productions of the soil of our County.

It is no new thing to have attention called to projected schemes for an increase of the wealth of the citizens or the development of the resources of a County or State, to efforts made to minister to the luxuries, to gratify the tastes and relieve the great human race from its necessities, at first, a murmur of doubt or a smile of incredulity greets the prospect of success, after a little, quietly, slowly but surely, difficulties disappear, obstacles are overcome, the skill of science and the flowers of nature are put under contribution, and the result is, that the most sanguine expectations are realized; another garment of comfort or another bowl of pleasure is placed before our eyes and within our reach.

A few years ago and the shores of Europe were distant from our own two, three, or four months' travel, but now, by the ingenious application of scientific skill to the secret powers of earth, air, fire and water, the sound of the cannon has hardly died away upon the coast of Turkey before a knowledge of the result has filled our cities, penetrated our mountains and spread over the rich and broad valleys of the Mississippi; inflating the price of grain, reducng the value of cotton, changing the price of slaves and affecting every product of the soil upon which depends our comforts or our hopes for wealth.

It may be asked how have this and other like results been achieved? The answer is, by the association of mind, labor and capital: no one man has mind to devise the ways and invent the means to execute so vast a plan for improvement; no one man has the capital necessary to develope it; and even if he possessed the mind and capital, nature having set bounds to his physical powers would force him to join the powers of others with his own to secure success: Experience and observation have taught the cautious and the prudent that the surest and safest way of success in any enterprise, calculated to benefit the many, is by combining and associating men together and giving a common direction to their various powers. The truth of this has long been known and acted upon by the industrious, intelligent and business part of the citizens of the Northern States; with them to combine mind, labor and capital, makes no work too vast, no knowledge too costly, no good too remote and no prospects of good profits too dim.

Their soil is by nature poor, but combined mind and money and thorough teaching through papers and periodicals, taught their farmers how to make it rich, and enable them to feed Europe, starving and stretching forth her hands begging for bread. The soil of Massachusetts and Rhode Island was sterile and barren compared with that of our own State—stones, gravel and land were their striking features—now, however, by the application of manures, a judicious mixture of soils, they have made their lands easy of cultivation and more productive than ours, and of course realizing to the farmer larger profits than ours do. Their farmers have not hesitated in the use of mind, money and labor to obtain the learning and instruction that would enable them to cultivate their lands in such a manner as would force them to yield profitably, yet leave the soil rich and of increased value. It is not with them as with us, to make the cultivation of the land the surest and most effectual means of destroying its value and rendering it worthless.

You may ask, how is it, the Northern farmer so surpasses us? The answer is, by reading and studying scientific and agricultural papers; trying and testing the laws and rules gleaned from them; convening in agricultural societies and learning the results of his neighbor's experience of new machinery, drainage and measures; learning if his crops failed and the causes of it and avoiding the difficulty; stndying the soils, finding out its wants, giving to it what it needs and neutralizing that which injuries. The error is not committed of thinking that there is nothing new to them, though there may be nothing new under the sun. Let us see what such a course effects, and in order that the comparison may be a fair one, we will take at random one of the counties of Pennsylvania, for instance Columbia county, having about the same number of white population and not so many acres as Caswell by some ninety thousand. According to the census of 1850, there are in Columbia county some 1500 more children attending the common schools than Caswell, and, notwithstanding there are not so many acres as in Caswell, the cash value of their land exceeds ours by some two millions of dollars; the value of her farming utensils is greater by some thousand dollars. By nature our soil is as rich as hers, yet by attending agricultural societies, observing the best modes of tilling the land, her farmers have placed their county far ahead of ours.—This instance will illustrate the result that would take place upon comparing Caswell with many other Northern counties, yet she has as good climate and fine soil as are to be found any where, and above all, we regard ourselves as good farmers. It is true that tobacco is cultivated no where so profitably; the soil yields corn readily and abundantly, and in this portion of the country our wheat is considerably the heaviest and finest brought to market; all this however is the result of the virgin soil, for we have not increased the value and fertility of the land in proportion to the means afforded us and the improvement of every thing around us.

Why are we behind? It cannot be that our citizens are not formed of materials capable of improving. No county in the State has a poplation surpassing ours in energy and intelligence. The misfortune is, we place too low an estimate on the labor and knowledge necessary to make a good farm; we regard farming as a mere mechanical operation; we never direct our attention to reviving the soil after we have exhausted it; we are satisfied when we plough, sow and reap, never reflecting that the earth should be supplied with the strength of which you deprive her by reaping.

The errors and negligence in farming have attracted observation, and efforts are now being made throughout the State to call the attention of farmers to the facts and means of remedying these evils. There is now being published in the State the *Farmer's Journal*, edited with much learning and ability, the object of which is to aid and instruct the farmer in all the different branches of his pursuit and is well worthy of their patronage.

The Legislature has also lent its aid to stimulate and encourage the farmers to seek improvement on their present system: at its last session a law was passed giving an agricultural society in each county $50, whenever they have paid a like sum to their treasurer.

Why pass such a law? Because it was apparent to the members of the Legislature, coming as they did from all sections of the State, that our present system of farming was a vicious one and required improvement. But you may ask, why offer a bounty to a society and make that one of the means to correct errors and mistakes? The answer is a plain one—this agricultural societies have been tested in every State in the Union and have been found the readiest and surest means of overthrowing bad farming and diffusing good systems among the people; to assemble them once a week to compare how each one prepared the soil, the different method of sowing and gathering the harvest, will soon point out errors and suggest causes of failure and stimulate the mind to pursue a well digested system of farming; each one learns from his neighbor, and there will rarely be found a farmer however obscure he may be, or limited his operations, but possesses some practical information, the knowledge of which will be beneficial to his neighbor or the community. The object of the society is to open these fountains for the use and benefit of all. The present system is admitted to be defective; and if the farmer remains on his plantation, never hears the causes or inquires into the reason why his neighbor makes so many more bushels of grain to the acre than he does. Why his cattle are in better condition, he will continue to follow the system that brings small remuneration for his labor—wear out the strength of his vigorous manhood in obtaining simply a support—and will perhaps in his old age drive him to look for a living in the fresh and strong lands of the New States.

But let us hunt after and seek the most profitable and judicious method of managing a farm by reading agricultural periodicals and papers, conversing with your friends and neighbors when you have assembled together, and an improvement in our system will soon develope itself. Why do you cure tobacco yellow instead of red as formerly? Because it commands a higher price in market; this method has been persued for a number of years by some of our farmers who obtained high prices for it, while others have only recently acquired the information necessary to succeed in so curing it, and have for a number of years been loosing the difference in the price of the two kinds of tobacco. Had we have had a society similar to the one now formed, many farmers would doubtless have learned the art of curing tobacco yellow at a much earlier day and thereby gained many hundred dollars for the county.

Numerous other facts might be given to illustrate the benefits a well organized and regularly conducted agricultural society would confer upon the county. Not among the least of the motives rulling and controlling human actions is the laudable ambition for praise or the desire to accumulate wealth.

This society should pursue a course that will offer to the farmer one or the other of these inducements for which ever may be his aim, the result will be the attainment of the organization of this society. The most affective method of bestowing upon the farmer a suitable and honorable reward for his progress in farming is to hold a Fair, and offer premiums for the best cattle of all descriptions, for the finest tobacco of a given number of pounds, for superior home manufactures, and in fact for a sample of each article that it would be to the interest of this county to encourage the production, it would offer a field for competition of a pleasant and most praise-worthy character, it would bring together the farmers, and place before their eyes a superior sample of all the products of Caswell to serve as a standard to reach by good management on his own farm, it would stimulate those who farm well to surpass if possible what they have already accomplished, and the expense incurred in arranging these fairs would be laid out amongst and return to the farmers so that nothing would be lost, but much might be gained.

Your Committee are of opinion that Yanceyville presents the most suitable location for holding a fair. The lot known as the Silk Factory has been kindly and generously offered for our use by its owner, with the promise of enclosing it with a small expenditure it can be made a convenient and pleasant place for the exhibition of the skill and industry of the county. A safe and convenient place for cattle, as water can be obtained with little trouble. We are of the opinion that the cost of such a fair both in preparing the lot and payment of premiums, will not exceed three hundred dollars—this sum it is proposed to raise in part by voluntary contributions, and from the interest and zeal already manifested in the success of the enterprise, there can be no doubt but a sufficient sum can be raised to carry the design into successful execution.

Some of our largest farmers are deeply interested in this matter, and exhibit that kind of spirit that knows of no such thing as failure, and by a little effort and exertion this feeling can be spread throughout the country, and our citizens stimulated to bring their products to the fair for exhibition, and enter the list for praise and premiums. The fair can be held at a season of the year when it will not interfere with laborers and engagements of the planters, some time in October or November, when the crops are gathered and the weather is mild and pleasant. Surely it would be a matter of no small moment and consideration of our farmers at the end of the year to gather together, talk over the system pursued by each one in planting, the incidents of the year, the causes of a failure of the crop, and above all compare with each other their products, and determine who has succeeded best—bestow the reward when it is due. A course like this would get up a generous rivalry and a friendly feeling among the farmers, a laudable strife for success, that would in a few years largely increase the wealth, and place Caswell at the head of the list of agricultural counties.

JOHN A. GRAVES,
N. M. ROAN,
E. P. JONES,
THOS. D. JOHNSTON,
THOS. BIGALOW,
S. P. HILL.

Miscellaneous.

COMPARATIVE PRODUCTIVE ECONOMY OF THE UNITED STATES

BY CHARLES C. COFFIN, WEST BOSCAWEN, N. H.

An understanding of the laws which regulate the wealth of nations, is necessary for national prosperity. That those laws are not understood, is evident from the returns of the seventh census. Those returns exhibit some unlooked for, and remarkable results. Yet we were not prepared for such discrepancies in like productions from different localities.

That there are other reasons than a want of knowledge of nature's laws is also evident. In such a country as the United States, to which immigration is setting like a ceaseless tide, the laws of nature will, as a matter of course, be violated. The German brings the experience which he has had upon the fields of his fatherland; the Irishman farms as upon the bogs of the Emerald Isle; the Norwegian, as upon the steeps of his nativity—all unfitted, as is each system to the soil and climate of their adopted home. Each has his own prejudices and customs, venerating them in the highest degree, and unwilling to yield to the imperative demands of nature.

Hence those States, which are in their infancy, cannot be taken as a correct data.

The sources of the nation's wealth are so various, that it requires large scope of vision to comprehend them. A country embracing such an extent of territory, with variations of climate, thermal and hydrometric, such a variety of geological formation, and combinations—embracing all the precious and useful metals; such an extent of sea-coast and numberless rivers; presents considerations to the economist, which are not to be found in any other on the globe.

National prosperity is subject to three pursuits;—commercial, mechanical and agricultural;—the latter is at the basis of all. Of agriculture we propose to speak; but as some States are extensively engaged in manufactures, and others in commerce, allowances should be made in the comparative results.

It is a natural supposition that a State possessing equal advantages with another State, should be equal in its like productions. Such is not the fact, as will be apparent from the annexed tables. Taking the article of butter,—a product universal the world over, and which can be produced in any climate, we see the following results. The States being arranged in progressive order.

	Lbs. per Cow, per annum.		Lbs. per Cow, per annum.
Florida	5	Maryland	43
Texas	10	Indiana	45
Georgia	13	Iowa	47
South Carolina	15	Delaware	50
North Carolina	18	Wisconsin	56
Alabama	18	Massachusetts	62
Arkansas	19	Ohio	63
Mississippi	20	Maine	69
Tennessee	33	Michigan	70
Missouri	34	New Hampshire	73
Virginia	34	Connecticut	75
Rhode Island	34	Pennsylvania	75
Kentucky	39	New Jersey	79
Louisiana	41	Vermont	83
Illinois	42	New York	85

In many of the States large quantities of milk are sold; but if the above table is examined, it will be seen that most of those States which produce the largest amount of butter, sell the most milk. Vermont is an exception. But the exception will be accounted for in the quantity of cheese produced.

The purely agricultural States of the West, with broad prairies, fertile fields, and favorable climate are behind the bleak and barren States of Vermont, New Hampshire and Maine. New York stands highest on the list, yet she sells millions of gallons of milk per annum.

The reasons for such discrepancy must be beyond climate or soil. They are to be found in inferior stock, and improper management.

In the article of cheese* there is a wider difference.

	Lbs. per Cow.		Lbs. per Cow.
Louisiania	.01	Indiana	2.25
South Carolina	.02	Illinois	4.00
Maryland	.04	Iowa	4.00
Missouri	.09	Tennessee	4.72
Alabama	.13	Wisconsin	6.00
Georgia	.14	Mississippi	10
Delaware	.16	Rhode Island	11
Florida	.24	Maine	18
Arkansas	.32	New Jersy	30
Texas	.40	New Hampshire	31
North Carolina	.43	Ohio	36
Tennessee	.70	New York	53
Kentucky	.89	Massachusetts	54
Missouri	.89	Vermont	59
Virginia	1.37	Connecticut	62

The State of Vermont produces more pounds of cheese than all the rest of the Union, with the exception of New York, Ohio, Maine, Connecticut, Massachusetts and New Hampshire; and this from 146,128 cows.

It may reasonably be asked if there is aught in the geological formation, geographical position, or climate of Vermont, to account for the successful prosecution of such a branch of agriculture; which may not be equally successful in other States? We answer no. New York and Ohio, New Hampshire and Connecticut show the same capability.

But if we look at the number of cows per individual, surprise at the discrepancy will be still greater. We shall see that some of the States, which produce the least butter and cheese per cow keep the greatest number of cows per individual.

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*It is well known that cheese is not an article of food so universal in its use as butter; yet from such data, it would seem that many of the States were dependent upon others for this article of food, which with judicious arrangements can be produced in all climates.

	Cows per individual.		Cows per individual.
Maine	.22	Alabama	.29
New Hampshire	.29	Florida	.83
Vermont	.46	Mississippi	.35
Massachusetts	.13	Louisiana	.20
Rhode Island	.13	Texas	1.01
Connecticut	.23	Kentucky	.25
New York	.30	Tennessee	.24
New Jersey	.24	Arkansas	.44
Tennessee	.22	Missouri	.33
Delaware	.21	Ohio	.27
Maryland	.14	Indiana	.28
Virginia	.22	Illinois	.34
North Carolina	.25	Mississippi	.25
South Carolina	.28	Iowa	.24
Georgia	.36	Wisconsin	.21

Vermont is a purely agricultural State. The dairy is a branch of business natural to the State. It is made profitable by industry and energy. Each individual is possessed of one forty-six hundredths of a cow, each cow producing 59 lbs. of cheese and 33 lbs. of butter.

In the State of Florida, each individual owns eighty-three hundredths of a cow. Each cow producing 24 lbs. of cheese and 5 lbs. of butter.

Now for what purpose do the agriculturists of the South rear such stock? Surely not for profit.

The total lbs. of cheese produced in the United States in 1850, was 105,535,219, or about 4 1-2 lbs. to each individual. The export for each year was 10,361,189, leaving about 4 lbs. per individual for consumption. Now if the consumption is equal in all the States, there are but seven States that produce their own cheese—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New-York and Ohio.

Pennsylvania, with a population of 2,311,786, produces but 2,505,034 lbs. of cheese. If each individual consumes 4 lbs., there is a deficit of 5,742,110 lbs., which at 10 cts., amounts to more than half a million dollars. And this, with a soil and climate equally advantageous with New York or Ohio. Indiana, with a population of 988,416, produces from 284,554 cows, but 624,564 lbs. of cheese and 12,881,535 lbs. of butter.

This is a result where soil and climate are greatly in favor of the former States. Neither of the States sell milk, and it is reasonable to suppose that the proportionable consumption of milk, as an article of food, is as great in one as the other. Hence the discrepancy must be sought for in the stock, or in the management of the dairy, or in both. There is no reason to suppose that Indiana may not be made to equal Vermont, but on the contrary, excel it in dairy products.

The discrepancy which exists between the States of Vermont and Indiana is illustrative of that of the whole Union, not only in cheese, but in various other articles.

The amount of wool produced per sheep, shows results which must be attributed to stock and management.

In the table appended there is evidently an error in the computation for Massachusetts; for it can hardly be supposed that that State should range so far ahead of all others,—especially of Vermont, where wool-growing is a profession.

	Lbs. of wool per sheep.		Lbs. of wool per sheep.
Maine	3.02	Florida	0.99
New Hampshire	2.90	Mississippi	1.8
Vermont	3.35	Louisiana	0.9
Massachusetts	4.53	Texas	1.3
Rhode Island	2.9	Kentucky	2.0
Connecticut	2.9	Tennessee	1.6
New-York	2.9	Alabama	2.0
New Jersey	2.9	Missouri	2.1
Tennessee	1.3	Ohio	2.5
Delaware	2.1	Indiana	2.3
Maryland	2.6	Illinois	2.4
Virginia	2.1	Michigan	2.7
North Carolina	1.6	Iowa	2.4
South Carolina	1.7	Wisconsin	2.0
Georgia	1.7		

Vermont, with a climate of long winters, stands first on the list, probably as to quantity per sheep, and quality. No State has given so much attention to wool growing, and within the last ten years she has produced a stock not surpassed in the country.

If Vermont has done thus, why may not Ohio, Pennsylvania, Kentucky and other States with climate to assist, surpass Vermont?

It has been computed that each individual requires seven lbs. of wool per annum, therefore the country requires not far from 166,000,000 lbs. per annum. The lbs. produced in 1850, were 52,789,174 from 21,721,814 sheep, or 2.44 lbs. per sheep. Showing a deficit of more than 100,000,000 lbs. Now if the lbs. per sheep were raised to that of Vermont, it would increase the amount to 72,000,000; and if the quality, which may now be rated at 0.40 per lb., were increased to that of Vermont, which may be called $0.50; it would give an increase of 15,000,000.

It is a well known fact, that it costs no more to keep a good animal than a poor one; here then would be actual gain of fifteen millions of dollars to the country per annum. This applies with equal force, to all the products of the country which are not in any great degree affected by climate.

The deficit of 100,000,000 lbs. of per annum, —in value $40,000,000, is worthy of the consideration of the agriculturists of the country.—But the discussion of the subject cannot be pursued. It has been theorized by economists, but it is a problem which will settle itself.

Yet to arrive at national wealth, it is absolutely necessary to understand the laws of production and distribution. It is only by comparative analysis that a State can understand its progress.

There is a legitimate business for every community. It is not a haphazard course which a community can pursue successfully for a long period. Prosperity is founded upon rational laws,—laws of nature, or of circumstances.—Some of the States must of necessity be manufacturing, others commercial, others agricultural, and others, combining different employments.

It is impossible with the space at command, to do more than to glance at the industry of the country. Bnt perhaps enough has been said to call attention to the comparative economy of the different States. No State can float serenely on the tide of time to a great and glorious destiny. The great moving powers are industry and energy; making use of the means which nature or circumstances has given.

IMPROVEMENT OF LIGHT SOILS.

Very light soils are comparatively unproductive, in their natural state, from two causes: they are defficient in the elements of plants, and their mechanical texture is too loose to afford plants —especially in their early starges—a sufficiently firm hold. The former deficiency may be supplied by the application of the ordinary manures, but as such soils possess little or none of any substance which can hold manure by combination, this remedy of itself is only temporary. It has been proved by practical experiments, that clay possesses the power of retaining manures—the alkalies, as ammonia, potash and soda, readily combine with clay, and the gases which are emitted by decomposing animal and vegetable matters are absorbed by this substance. The alumina contained in clay constitutes its adhesive power. Hence, as a means of permanently improving light soils, clay is a substance of great value. It supplies a principle which prevents the waste of manures, and holds them a situation to benefit crops to the greatest practicable degree, at the same time that it corrects the mechanical defect of the soil by imparting the requisite adhesiveness and solidity.

Though clay has been sometimes used as an improver of sandy and gravelly soils, its value for this purpose is not generally appreciated. We believe that its application—where it can be readily obtained—should be the first step in the attempt to derive profit from the cultivation of such lands. Mr. D. D. T. More, near Albany, N. Y., who has made one of the most productive farms in the country from a tract of worn-out, light land, says that a load of blue clay, such as abounds in that vicinity, is worth more for him than the same quantity of stable or yard manure. The late Professor Norton, in an address delivered at Northampton, said—"I know of one farmer near Hartford, who has carted clay by return teams from that city, a distance of nearly nine miles. He assured me that it paid him well, and that a load of clay was worth, on his soil, two loads of manure." W. C. Goldthwaith, in an address delivered at Springfield, several years since, said—"I have tried some experiments of this kind, putting on about 80 cords of clay to the acre, or say three inches in depth. Some may prefer a lighter dressing, but in farmin g as well as elsewhere, 'work once well done is twice done.' The effects of this course of treatment were exceedingly durable. Fields within my knowledge that were so treated, have exhibited the beneficial effects after a lapse of twenty-five years." Within the knowledge of the writer, a coating of clay, perhaps two inches in thickness, was applied to some knolls of blowing sand, and the beneficial effect was clearly seen twenty years afterwards.

But the benefit of applying clay to the soil does not result wholly from the causes abovementioned. Some clays abound in fertilizing elements—they are actually rich, and only need amendment in their mechanical relations, to become highly productive. This is particularly true of the clays in the Connecticut valley, and those of the Albany basin. We have noticed on the farms owned by Messrs. Wells and Paoli Lathrop, in South Hadley, that where the clay strata have been cut down by the wearing of streams, the action of air and frost soon produces a friable soil which yields grass in abundance. Prof. Emmons gives the following as the composition of the blue clay at Albany, analyized by him:

Water of absortion	4.25
Organic matter	1.17
Sulphate of lime	1.00
Silicates	69.02
Peroxide of iron and alumina	17.24
Potash	00.10
Carbonate of lime	4.00
Magnesia	3.00

This analysis shows a better composition in reference to most of the elements which denote fertility, than is commonly met with in soils considered *good*. The chief deficiency is in organic matter. Clays vary in this respect, though all, probably, contain some. Prof. E. remarks—"It appears from numerous examinations which we have made, that clays contain more or less vegetable matter; they all blacken previous to ignition, and give off the odor of burning vegetables."

The lightest soils are frequently underlaid by clay at a depth from which it might be obtained at slight cost. The present is a favorable season to apply it. If spread on the surface now, the frost will reduce it to a fine state by spring, and it may be then intimately mixed with the soil by means of the harrow and plough. Without this exposure to frost; it will be difficult to reduce it to a pulverulent state.

Wood ashes generally produce a good effect on sandy and gravelly soils. The potash is believed to dissolve, to some extent, the silex or flint which is required in the formation of the stalks of grain and grass, and renders the soil more compact. It is probable that all alkilies have a similiar tendency. It may be partly owing to this that urine and other manures in a liquid state, which contain ammonia, are particularly beneficial on light soils.

Experience in the management of light soils has shown that it is best to apply ordinary manures to them in the form of well-rotted compost, rather than in a green state. Fresh stable or yard manure has no tendency to improve the mechanical defect of the soil; it tends rather to increase it—to make it still more loose and open, exposing its organic matter still more to the wasteful action of the air and rains. Manure which has been properly composted decomposed, on the other hand, attracts moisture to the soil, and by this means tends to prevent its too great lightness. The idea that this mode of preparing and applying manure is attended with a loss of its fertilizing principles, is not well founded. If it is mixed with proper absorbents, the salts and gases will be so combined as to retain them. Chemists tell us much of the absorptive power of carbon in the form of charcoal, peat, humus, vegetable matter, &c. If, therefore, the manure is brought in contact with carbon, by the use of muck, or litter, the properties evolved by decomposition will be prevented from escaping, while the natural action between the substances is favorable to the development of fertility—the alkaline salts of the manure render soluble the elements of the muck and litter.—*Boston Cultivator.*

RAISING AND HARVESTING TIMOTHY.

The practice of the writer of the annexed article accords with our experience, where timothy is to be raised alone. We would advise deeper ploughing and the free use of the sub-soil plow, if permanently good meadows are desired.

Messrs. Editors:—In your paper I often read questions such as these—best time to put in timothy, how to put it in, how much seed to the acre, when to cut it, and how to cure—1st. Any time between the middle of September and the middle of October. I have raised good meadow by sowing the latter part of November. 2d. I never sow less than a half a bushed to the acre. 3d. I cut when the blossom is about to fall. 4th. What grass is cut in the morning, I turn over after dinner, provided the weather is fine with plenty of sun ; if not I let it lay until the next morning or longer if the weather is not suitable. I will tell you how I do, if the weather is good. The next morning when the dew is off, I rake up into winrows that which was turned over the day before ; after dinner I put it into cocks, say from 150 to 200 lbs. in a cock ; the next morning I open them and after dinner I stack it, or haul it in the barn.

I put grass seed after oats or wheat ; never sow anything with it, I have found out to my own satisfaction, that it does better put in by itself. I sow no other kind of seed but timothy as it brings the best price here. I plow my ground but once, 6 to 7 inches deep, harrow it once or twice according as it needs it, sow my grass seed and roll it in.

I should add that I generally cut a first rate crop of grass the first season after the seed is sown, from 1 3-4 to 2 tons to the acre. I then let it lay 3 years and plow it up—put the land in with what you please ; I put in corn the first year, then oats and then grass-seed again.—*Country Gentleman.*

Worms! Worms!—A great many learned treatises have been written, explaining the origin of, and classifying the worms generated in the human system. Scarcely any topic of medical science has elicited more acute observation and profound research ; and yet physicians are ver much divided in opinion on the subject. It must be admitted, however, that, after all, a mode of expelling these worms, and purifying the body from their presence, is of more value than the wisest disquisitions as to e origin. The expelling agent has at length been found—Dr. McLane's Vermifuge is the much sought after specific, and has already superceded all other worm medicines, its efficacy being universally acknowledged by medical practitioners.

☞ Purchasers will please be careful to ask for Dr. McLane's Celebrated Vermifuge, and take none else. All other Vermifuges, in comparison are worthless. Dr. McLane's genuine Vermifuge, also his celebrated Liver Pills, can now be had at all the respectable Drug Stores in the United States and Canada. Sold by P. F, PESCUD, Raleigh.

Diseases of the Liver.—When the celebrated Dr. Rush, declared that drunkenness was a disease, he enunciated a truth which the experience and observation of medical men is every day confirming. The many apparently insane excesses of those who indulge in the use of spirituous liquors, may be thus accounted for. The true cause of conduct, which is taken for infatuation, is very frequently a diseased state of the Liver. No organ in the human system, when deranged, produces a more frightful catalogue of disease. And if, instead of applying remedies to the manifestations of disease, as is too often the case, physicians would prescribe with a view to the original cause, fewer deaths would result from diseases induced by a deranged state of the Liver. Three-fourths of the diseases enumerated under the head of Consumption, have their seat in a diseased Liver. (See Dr. Gunn's great works.)

☞ Purchasers will be careful to ask for Dr. M'Lane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills, also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

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November, 1853. 8---

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November, 1853. 8---

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BRINKLEYVILLE VINEYARD,

And Nursery Establishment.

ALL not tainted with outlandish prejudice will doubtless, (other things equal,) prefer patronizing State and country made articles of any kind (periodicals excepted) to foreign or those away yonder. The undersigned citizen of North Carolina has wines acknowledged by all, fairly testing them, superior in quality and cheaper than foreign. And upon which the highest encomiums passed at our State and the Norfolk late Fairs. Wines from $1 to $6 per gallon, according to quality. And well-rooted Scuppernong (best grape in the world for our climate, and largest berry known as four inches round as exhibited at the Fair in Raleigh) and other vines as also trees at the medium of a quarter each, and at rates of $4 per hundred for cuttings of all kinds as vines and trees.

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SIDNEY WELLER.

Brinkleyville, Jan. 27, 1854.

P. S.—Some quantity of vines and cuttings left for disposal in the hands of Mr. John Bobbitt, of Raleigh.

S. W.

C. LUTTERLOH,

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Persons desirous of ornamenting their grounds and gardens, will find his stock very select.

The Chili Pine, Cryptomeria, Deodar Cedar, Cedar of Lebanon, &c., standing at the head of the Evergreens.—The celebrated Giant of the Battles, Cloth of Gold, &c., among the Catalogue of Roses, will be supplied to applicants.

Orders will receive prompt attention.

P. S.—Plants can be sent to Wilmington by Steamboat for persons near all the Railroads.

Febuary, 1854. 10—tf.

THE FARMER'S JOURNAL

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ADVERTISEMENTS.—A limited number of advertisements will be inserted at the followingrates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

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N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

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JOHN F. TOMPKINS, M. D., Editor. **Wm. D. COOKE & Co., Proprietors.**

Miscellaneous.

HIRELING LABOR AND SLAVE LABOR.

No other element of agricultural production is so important as labor; and there is growing up in the country an earnest discussion of the relative advantages and disadvantages attending the labor of hirelings and that of slaves. Conducted in a calm and philosophical spirit, such a discussion will elucidate a grave and delicate subject, now too little understood, and benefit equally both kinds of productive industry. Unfortunately for the public interests, passion and prejudice usurp the place of reason and research, and writers assume as a conceded truth, what is false, that hireling labor and slave labor are in their nature antagonistic, and incompatible systems. They are no more antagonistic in their elements than the growth of a hickory tree is antagonistic to, or incompatible with the equal growth of an oak in the same forest. Both voluntary and involuntary labor have come down to us from ages that preceded all reliable public records.—They are not the offspring of studied invention, but arise directly from human necessities. It was an inexorable necessity that prompted the Egyptians to sell for grain, not only their cattle, their lands, and all other effects, but themselves, and their children after them, to Pharaoh. The wise, humane, and pious JOSEPH bought them at their earnest request, for their own good; and down to this day, under every change of rulers, their posterity have remained slaves.

There is about an equal measure of folly and wickedness in that sham philanthropy which attempts to ignore all the great lessons taught in the history of our race. Now and then a writer achieves an ephemeral reputation by the aid of false pretences, and the skillful use of high sounding declamation in behalf of the rights of man, and by denouncing the horrors of slavery. Of all writing and public speaking, this is the easiest to learn; and just now it is alike popular and democratic. More than one politician has invested his all of capital in the enterprise of working out a general and successful crusade of Hireling labor against Slave labor, in this republic. Some twelve or fifteen months since, the New York *Times*, in imitation of its namesake in London, sent a commissioner into most of the Southern States, nominally, to report on their "productions, Industry and Resources," in an impartial manner. Every civility due to a gentleman of character and talent—to the author of "Walks and Talks in England"—was freely extended to this avowed unprejudiced reporter for the Press. That there need be no mistake with our readers as to the position assumed by this commissioner, whose book is destined to have ten times more influence on the minds of voters than those written by Mrs. STOWE, we copy from the New York *Times*, of the 14th of Feb-

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destroy it. How and by what means we can rightly do this, it becomes us to study—not in the spirit of cowards, but as sensible and trustworthy men."

This Book, prepared at so much expense in travel and labor, and soon to be circulated all over the United States by "leading publishers" in New York, is part and parcel of a very earnest purpose. Hundreds are engaged in a common efforts to convince hirelings, most of whom
re voters, and not a few are proud of their
mocracy, that slave labor "hideously dis-
ts the fair features, and manacles the
e form of just, manly and benificent De-
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this Labor question, it may not be amiss
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bodied in an agricultural report to the
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may last, the following editorial remarks on the character of the letters of its correspondent:

But we believe that intelligent and fair minded readers in both sections of the Union—those who conceded on the one hand that this subject, like every other in this country, must be submitted to free inquiry, and those, on the other, who see that it is pre-eminently a question to be decided by sober judgment, and not by heated passion, and from practical considerations, instead of on abstract grounds—have read them with pleasure, and regarded them as contributing largely to the popular knowledge of a subject, on which it has not been easy to obtain reliable and unprejudiced information. We have certainly received warm commendation of them, from all sections and from men of widely differing opinions.

“ The series of letters have already been announced as in press by one of the leading publishers of this city, and will probably be, ere long, given to the public in a permanent form.”

The leading publishers referred to are doubtless the HARPERS, as they are proprietors in part, of the *Times* newspaper. To show beyond all cavil the *end* and *aim* of this latest book on Southern industry and institutions, we copy a few sentences of its *resume* contained in the forty-eighth and last letter, and published in the identical number of the *Times* in which its modest conductor claims for these Letters so much “impartiality and unprejudiced information” :

“In my judgment of its ultimate influence, there is no institution in the *world*, no form of tyranny or custom of society that is so great an injury, so great a curse upon the whole family of man ; nothing that so darkens the evangelical light of Christ, that so obstructs the path of civilization, that so hideously distorts the fair features, and manacles the whole form of just, manly and beneficent Democracy.

“Is free discussion of our duty with regard to this system, existing in the States with which our own are incorporated as a nation, with which we are connected by bonds that give our patriotism the same ends, as it has the same memories, to be feared or to be neglected ? I cannot believe it. It is our duty as it is every man's in the world, to oppose slavery, to weaken it, to destroy it. How and by what means we can rightly do this, it becomes us to study—not in the spirit of cowards, but as sensible and trustworthy men.”

This Book, prepared at so much expense in travel and labor, and soon to be circulated all over the United States by “leading publishers” in New York, is part and parcel of a very earnest purpose. Hundreds are engaged in a common efforts to convince hirelings, most of whom are voters, and not a few are proud of their democracy, that slave labor “hideously distorts the fair features, and manacles the noble form of just, manly and benificent Democracy.” To counteract false notions in reference to this Labor question, it may not be amiss to point out the inherent, incurable defects in the hireling system, the substance of which the writer embodied in an agricultural report to the New York Legislature made ten years ago. To illustrate an important feature in exclusive free labor, we will first relate a little incident of recent occurrence in the city of Rochester. As the writer was passing from his residence to his office a few days since, an able-bodied colored man stopped him in the street and begged money to buy bread for his family. His story was that able and willing to work he could not find employment at such wages as would support himself and family. As wheat was worth two dollars and ten cents a bushel, wood five dollars a cord, and other things in proportion, we did not doubt his word. From his language and civility, we knew at once that he was reared at the South, and he owned that he was a runaway slave. He had his freedom, but no bread: he had able hands, which God gave him, and was willing to be any man's temporay slave who could feed and clothe him ; but he could find no master. It is plain to every intelligent reader, that as a freeman, he possessed no legal or constitutional right to any other man's bread, or meat, or clothing, or firewood, or house-room; nor is there any law in New York or elsewhere, by virtue of which a would be-hireling can compel any one to give him food in exchange for labor. In the course of our life, we have seen numerous instances of virtuous white men and women seeking an honest employment and finding none; and our heavy annual taxes for the support of the poor and needy, bear the unmistakable evidence of the deplorable imperfections of the hireling system. Had not the laboring poor of the populous State of New York the benfit of an almost providential resource in the easily accessible, the wonderfully fertile, and nearly boundless West, their condition at this time ould be but a few grades better than that of thousands of hirelings and paupers in England. The large capital in New York is employed in a way that manufacture as many paupers for the money invested, as are produced in England; but being on a virgin continent, instead of a small island all appropriated, the poor of New York enjoy great advantages for migration over those of Great Britain. Money lent the State of New York at legal interest, (7 per cent.) and the interest re-invested every year, doubles the principle in 10 1-2 years; and before population can double to labor and pay the current exactions of capital, the latter increases five fold.—Because we demonstrated to the Legislature beyond the reach of dispute, that capital has advantages over hireling labor, which legitimately claimed and fallowed, would make the poor poorer as well as the rich richer, we were denounced in a score of papers as an "agrarian radical." Of all the substitutes for fact and sound arguments, we most despise the resortto epithets and idle denunciation. The science of production has been with us a careful study for many years; and we find that most of the evils popularly ascribed to the respective systems of hireling and slave labor, exist not so much in these systems, as in the natural ignorance, laziness, improvidence, and helplessness of their subjects.

It is manifest that so soon as society increases its numbers to that degree which compels the cultivation of the earth to avoid starvation, either voluntary or involuntary pillage must be enforced for the common safety of all. Some will work for wages, but the majority will not. How does a father treat an idle refractory son who wanting to eat, is able to work but refuses? If he does his duty he flogs the lad if need be, and makes him labor equally with the other members of the family. The same necessity which compels fifty passengers in a vessel at sea, who, in a shipwreck, or otherwise, lose their officers, to select new ones, and *obey* them, creates masters of hirelings and masters of slaves.

We contend that productive industry is no more an evil, labor no more a punishment, than eating and sleeping are evils, or curses. The Jews, being an indolent set of semi-savages at an early day, as, perhaps, were all the other branches of the human family, have handed down to civilized Europe and emigrants therefrom, false notions about "eating bread in the sweat of one's face." The *duty* inculcated by the Hebrew Lawgiver we admit is wise and authoritative; but to till the earth, and thereby live comfortably, and render human elevation progressive and comparatively easy and certain, is not only an obvious duty, but an *obvious blessing*, which has emanated from an infinitel wise Creator. It is conceded that both slave and hireling labor may be abused, and alas, too often are abused. If every thing that man abuses is to be "destroyed," then not only slavery and hireling labor, but man himself must be exterminated from the earth; for man has never ceased to abuse himself in a thousand ways, as well as his children, his servants, and his hirelings. Abuses are so common, so complex and varied, that any institution older than history, which has stood the shocks and revolutions of countless generations, is as much better as it is stronger than its puny assailants. To reform and improve mankind, the true way is to assail wrong-doers with the directness of the New Testament, and not waste talent, time and patience in silly attacks upon institutions that will die of themselves when their prolonged mission is fulfilled, and which cannot be overthrown a day earlier. We repeat, our institutions, with all their acknowledged imperfections, are better than the people who live either over, or under them. How often do unworthy judges and corrupt juries render unjust verdicts? Nevertheless, courts of law are institutions that cannot be dispensed with. Institutions as well as men may be reformed; and we have no doubt that both slave labor and hireling labor need reformation. A well considered effort of this kind would command the favor and assistance of all good citizens. To amend and improve are infinitely better than to tear down and "destroy."

Agricultural industry now fails to produce more than two-thirds of the wealth that it ought to produce, owing to its unwise application.—There is really no system in our cultivation of wisdom. It comes, we know not why, like a gleam of sunshine in winter; it suddenly leaves us, we know not how, as desolate as a killing frost in June. It is the part of wisdom to honor labor, and make it the just pride and glory of advancing civilization. Consider its rich and and ever-increasing fruits; and then remember that these, in all their present length and breadth, heighth and depth, are but the promise of almost infinitely greater achievements soon to be realized by better economy and wiser industry.—Our soils, our climates, our agricultural plants, our domestic animals, the labor of our servants and hired men, of our own hands, and our own brains, have undeveloped resources of inestimable value. These are all elements of scientific production, and deserve the most thorough investigation. Slave labor is as susceptible of improvement as human nature will allow; and no one should cherish any secret, or openly expressed apprehension of dangers from without, or within to the man who is obedient to duty. Those slaveholders whose misconduct brings shame and reproach upon the South, should feel the salutary restraint of a corrective public opinion at home. Reporters, with pen and ink in hand, are everywhere; and no tale told to the prejudice of the "peculiar institutution," loses any of its worst features by travelling the rounds of the American press. It is no part of our purpose or duty to apologise for any thing that may be wrong either South or North. Hireling labor and that of slaves cultivate the soil of the United States; and the consideration of both kinds of rural industry comes up naturally and legitimately in our line. When the poor colored man who applied to us for assistance (not in vain) said of his own accord, that he was worse off as a street-beggar in the State of New York than as a slave on a Southern plantation, it was manifest that a person may lose his claim to a good home, with all the substantials of an American farmer, and gain neither the wages of a hireling, nor the bread of honest industry as a freeman. The port of Genesee, with an open lake all winter, is one of the termini of "the underground railroad to Canada;" and it is no fiction to say that between slave labor and hireling labor there is a great gulf into which many a poor negro falls, to his sorrow.

To exchange the legal right to work and live comfortably in Virginia for the legal right to beg or starve in New York or Canada, is a step backward in civilization. Fanaticism can neither abolish nor alter the facts that Capital rules the world, and deals better with slave labor in a sparsely settled country than with hireling labor in States which are densely populated. We have no very exalted opinion of the wisdom of Capital; and we have searched in vain to discover the superiority of brains made of gold to brains made of iron. Mankind, when closely studied, appear to govern themselves with very little wisdom. If the sovereigns of this "model republic" were wise, the rights of property would be placed on a securer footing, the rights of humanity be better understood, and all begging and pauperism be banished from the United States. But some how in practice, the people of no nation are willing to learn wisdom beyond what the blind worship of money teaches them. The people of enlightened, civilized France recently had in their own hands every power of government, and voluntarily surrendered it for the tinsel of despotism. They were too lazy to do their own thinking, and govern themselves. With every power in their own hands, would three or four millions of negroes in this country be likely to do as well as the French have done? Verily, human elevation is a vast undertaking—a slow work.

A labor-education, such as slaves under the most favorable circumstances, receive, exerts a happy and powerful influence to humanise the brutal nature of man. First to subdue, then time, and finally work out the wild beast within him, and introduce an ever active willingness to labor not only to live, but for all noble purposes, are a part of the natural wants of every semi-savage man. Labor appears to be the effective means appointed by Providence, to transform a herd of ferocious cannibals, fearing neither God nor man, into the most upright, cultivated, industrious and useful specimens of humanity.—Savages never lack liberty, about which narrow minds prate so much, yet, they never cease to be savages till agricultural labor changes their *feræ naturæ*. Until this great and radical change is fully consummated, involuntary work of some kind is indispensable, or man easily and naturally reverts, like the former slaves in St. Domingo, back to idleness, vices, crimes and hopeless brutality. To start him out of the degradation of the brute, and lift him into the sympathies of civilized life, there may be better things than the plow, the hoe, and the whip, but neither ancient art nor modern science has discovered them. D. LEE.

SWINGING ROOST FOR FOWLS.

MR. EDITOR,—By your leave I wish to say a word for the comfort of the ladies; especially as I am a bachelor—and of course very desirous of gaining all possible favor with our better half. The means selected for this very desirable object is to enable our good housewives and their dear, sweet daughters, God bless them! to save their precious fowls from these midnight thieves and insiduous cut throats, the *minks* and *weasels!*—And as the plan of defence is simple, facile and cheap as well as infallible, I am quite sure it will prove a *fine feather in my cap;* and as it is to benefit the ladies, I shall not, therefore, apply for a patent.

The plan, then, is neither more nor less than a *swinging roost*, so high from the floor and so far from the walls of the house, as to make it impossible for the vile cut-throats to reach it by *jumping.* It is made of very small, well-skinned pine poles—four pendulars or supporters, nailed to the roof, and two side or roost poles, nailed laterally to the lower end of the pendulars, with two or more cross, poles for braces and additional roosts.

How simple, yet how admirable! For several years I have suffered so severely from these insatiable blood-suckers, that I was forced into the conviction that I had either to outwit the rascals or surrender altogether. Being unwilling to give up my eggs and chickens, I began one day to scratch my head violently for help, and after some pretty heavy drags, out came the *swinging roost*, to my great joy, and of course I cried Eureka! Eureka! and forthwith went to work to consummate my glorious triumph! Thus is necessity the mother of invention! Wherefore it is my sole and exclusive privilege and delight, after a thorough test, to assure our fair friends of the other gender, that if I could only be perched with dear madam and the little ones as safely and as comfortably as are my hens with their mates and broods, I should be the happiest man of the happy in all these happy United States. Assuredly, a good roost is a great comfort for all bipeds! wherefore cannot you, my dear Editor, on such a patriotic theme, just drop a word to help a solitary rooster? For, blue devils, certainly, are much worse than minks and weasels; but a *swinging roost*, with dear madam and all a-perch, is a great invention, and a sure defence. Could you, my dear fellow! but provide for me as I have for my happy roosters, I would forthwith guarantee a full hatch of new subscribers—not *simultaneous*, however, *seriatim* of course; besides insuring my dear mate and the brood against all blue devils, minks and weasels of every sort. Don't fail, therefore, to commend my *swinging* roost, and so help on the Southern Planter—and the ladies—and the chickens—and a FIRST-RATE ROOSTER.

—*Southern Planter.*

Lunenburg, Valentine's Day, 1854.

MONMOUTH COUNTY AGRICULTURAL SOCIETY.

On the 21st of January we delivered an Addresa at Freehold, Monmouth Co., New Jersey, before the County Society, at its first regular meeting. This Society has been formed within the last two months, and already numbers 500 members, all of whom seem to be ready to adopt the improved modes of culture. Among the resolves was one to memorialize the Legislature to order a new survey of the State for agricultural purposes, including its geology, analysis of marls, soils, etc. This county has risen in value mainly from the application of the sciences to agriculture. Analysis has shown the value and mode of treatment of the marl beds, and the proper use of alkalies, and most of the farms have been treated as recommended by those who examined the marls. Many thousand of acres in Monmouth are now worth from $100 to $200 per acre, which could have been bought a few years since for $10 per acre, and from the ease and economy with which the soil can be tilled, we belive, even, at the advanced prices, it is cheaper than any other land within one hundred miles of New York for gardening purposes. Let those who wou.d scoff at analysis of soils, go to Monmouth county and examine the results there obtained, and they will find practice has proved that farmers may ascertain the requirements of their soil by cheap and direct means.

We visited the celebrated farm belonging to the American Phalanx Association, and as on all former visits, found a happy community of one hundred persons or more, entirely successful in scientific farming. If this association would receive pupils who desire to become farmers, they could have any number they may desire. The gardening, horticulture, etc., pursued at this establishment, is not surpassed at any other of its size in the county, while the extent of the farm (700 acres or more) embraces all sorts of culture. All the products are prepared for market, in the best manner, and a thorough practical education could readily be given to farmers and gardeners.

We are not informed if the Phalanx will receive pupils, but if they will, we can furnish them any number, as we are applied to daily by those who desire instruction.—[Ed.

Soil of the South.

BARN-YARD BUILDINGS.

No feature in our plantation economy, tends more to depreciate the respectability of our profession, than the style of our barn-yard improvements. Not one planter in a hundred has a house which can be dignified with the name of a barn. The common arrangement is a rail-pen for corn, a rail-pen for shucks, fodder and oats in stacks. The evils attending this custom are numerous. It is at once the creature and the creator of that spirit of restlessness and emigration which characterizes the whole planting fraternity. We do not make better improvements because we do not feel settled, and we do not feel settled because we do not make better improvements. Almost any soit of a contrivance will do for a few years, and we conclude, correctly, that a rail pen will last until we can wear out our lands. Let us build permanent improvements and they will constitute an additional incentive to improved culture of our lands. There is no surer means of settling a man, than for him to spend his time and occupy his mind in the improvement of his estate. Every house he builds, every ditch he digs, every tree he plants are but so many ties to bind him to his home. In other words, by just as much as he improves his place, by just so much does he add to its attractions; by just so much does he increase the disparity between what he has and what he can get on a new place. A planter who improves his plantation, invests in it, not only his money, but his thoughts, his tastes and his affections. The first advantage, therefore, to be derived from making improvements is, that it will correct, to a large extent, that spirit of emigration among the planting community which has almost depopulated some of the best agricultural districts of the South.

Another consideration, and one which may probably appeal more successfully, is, that we will make more money by making permanent improvements; first, because when they are once made, they are made for good, and secondly, because they save from actual loss, more than enough to pay the cost of their construction. A properly constructed barn will last for several generations, and, on a plantation of twenty-five hands, it will save enough in three years to pay for it. Nobody but one who has tried it, can estimate the amount of corn and shucks, and fodder and oats which are actually destroyed by negligence in our ordinary barn-yard arrangements. There is enough shattered corn and rotten fodder and oats on a common sized Southern plantation, to sustain a respectable Yankee establishment. A Massachusetts farmer would'nt ask a better living than the loss about a Georgia planter's barn yard. With the privilege of picking up our leavings, he could afford to pay one hundred dollars per acre for the environs of our horse lot, and make more clear money than we do with an investment of ten dollars per acre in our cotton fields.

In the construction of barns especial reference should be had to convenience. In this respect, we are an age behind our Northern friends, not only in our farm-yard, but in our residences. I prefer to have everything in the barn-yard, as far as practicable, under the same shelter. It is objected to this plan, that it is risking too much by fire to connect so many things under one roof. There is no force in the objection, because there is no reason why any barn-yard buildings should ever be burned, as we never have occasion for fire about them. At any rate, this consideration is of too little weight to balance the numerous conveniences of this arrangement.

The building should contain a mule shelter, a corn crib, a fodder and oat loft, a cutting room, and a harness room. The mule shelter should be sufficiently large to afford abundance of room for each mule, and should be divided into stalls or not, as suited the notions of the planter. I prefer a stall 10 by 7 for every mule. The corn crib, the fodder loft, and the cutting room should all be so arranged as to connect with the mule stable without the necessity of leaving the roof, in order to prevent unnecessary exposure in wet weather. Care should also be had in the construction of the house, for making manure, and also for hauling it out easily.

I have given these general suggestions, rather than send a drawing of some particular plan, as almost every one has some fancy to gratify in the construction of a barn.

COOSA.

MILKING COWS.

To insure the greatest yield of milk from a cow, she should not only be well fed and well tended, but also well mixed. Now it is not every man or every maid, who can squeeze fluid from a cow's udder, that is a good milker.

It is important, in the first place, that a cow's bag should be clean. For this purpose, when the animal is stabled—as they are, or should be during the winter, on all farms, and throug out the year by many—let the whole udder be washed with cold water, and immediately thoroughly dried with a towel. The advantages of this practice to the health of the animal and the healthiness of the milk are great and manifest; and in this way, too, we escape the black sediment of which milk-buyers so constantly complain, and which is nothing else than small particles of manure, brushed from the bag and belly of the cow into the milk pail. The hands of the milkman by this process become washed clean, of necessity; an operation too generally omitted by those who consider themselves neat and careful. The same process obviates, too, the supposed necessity of moistening the teats by milking a fine stream into the hands and washing the teats therewith,—a filthy practice followed by almost all men and too many women.

The udder being now cooled and cleansed, we are ready to begin milking. If the cow be well trained she will now extend backwards her hind leg for your convenience, without a word accompanied with the word of command "*hoist.*" They understand what is required of them, and need only at times, a gentle reminder. But it is a singular fact that men who are kind in every other relation of life, as husband, father, neighbor and master—are rough in their treatment of gentle "bossy." If they say "hoist," it is in stentorian tones; and too generally the first intimation of their wishes is conveyed in a striking manner, by the edge of a heavy milking stool. Now a considerable experience among the "milking mothers of the herd" has convinced us that harshness of tone or petty cruelty is not only not productive of good results but is extremely disadvantageous. Many cows, that hold up their milk to a cross milker, will give down freely to one more gentle. And the sack of grain, or other weight across the loins, which is well used to compel the animal to give down, would have been uncalled for if a kind hand had always drawn her milk, or could soon be dispensed with, if gentleness takes hold of the teats.

Now the cow may kick. Well, we have in previous numbers of this journal shown that to return kick for kick is a poor method of converting Mooley from the error of her ways, but she may be completely cured by kindness.

When fairly seated, it is of the utmost consequence that the milking should be done without violence, and as rapidly as possible. Many persons who pride themselves upon their fast milking, jerk the teats violently, and others will cause them to become sore by the pressure of their finger nails. The best milkers scarcely move their elbows, but with the upper portion of the hand grasping and compressing the teat, force the jet of milk by the pressure of the lower fingers.

Whether a cow should be milked before, after, or during feeding is a question of minor importance, and must be decided by circumstances. R. L. Allen, in his excellent work on "domestic animals," recommends, if we rightly remember, that they be milked while feeding, for the reason, that while thus engaged they will more readily let down their milk; but many cows, at other times quiet, will be a little uneasy while eating, and anxious to get not only all that belongs to them, but a share of their neighbor's meal also. For this reason we always milked before feeding that the feed might appear as a reward of merit. Where one has but one or two cows, it is of course a matter of little moment.

In fine, we recommend to those who want much milk and good milk, *kindness* and *cleanliness.—Journal of Agriculture.*

BENEFIT OF DITCHING.

About one year ago I bought 120 acres of land, for $400. There was at least $350 worth of improvement on it. The reason I bought it so cheap was, it was so wet that the former owner could not make a living on it. He told the neighbors that it was too wet to raise grass. He said if he would sow clean timothy seed on it, in two years it will turn to wild grass.—Well, last spring I went to work and cut a ditch large enough to drain it decently. Some of the time I worked in the water to the top of my boots, and that not a little of time, for I cut the ditch in the lowest of the ground. The consequence was the water had a chance to run off, and my ground was fit to plow about as soon as my neighbor's *dry land.* I planted six acres of corn on the part I ditched; and from that six acres, I took off 400 bushels of shelled corn that was good and sound. This proves to my satisfaction that our low, wet lands when well ditched, are our best lands. I would say to one and all of those for whose benefit I write, hold up your heads, "For in due season you shall reap, if ye faint not"—in ditching. Do not back out at the noise of a few frogs; just go to work and dig a good ditch, and drain the water off from them, and they will soon be missing.

LUTHER BROWN.

Paulding, O., Feb. 3, 1854.—[*Democrat.*

From the Southern Cultivator.

"RESCUE GRASS"--CERATOCHLOA BREVIARISTATA.

MESSRS. EDITORS—Your kind favor of the 11th inst. is before me, and, in answer, I have to say that the history of my famous "Rescue Grass" is soon told. The seeds were sent to my father-in-law (the late Maj. James Smith, of Macon, Ga.,) about 5 years ago. He received about a tea-spoon full and had them planted in his garden in the spring. The chickens scratched them up and over the bed, and, as they did not germinate, the family thought they were lost or destroyed; but in the early part of September following they came up, and the grass grew so rapidly and was so luxuriant it attracted the attention of all who saw it. From this the seeds were saved and have been cultivated by the family ever since. There was no name or description on the paper in which the seed were enclosed. Last year when the grass was in seed I gave specimens to Dr. Hugh Neisler (the best Botanist here) to ascertain its true name and nativity, He could neither define or locate it. We then sent them to Dr. Torrey, of New-York, who wrote him its Botanical name, native place and properties. He said its Botanical name is Ceratochloa Breviaristata; English. "Short awn Horn Grass"—that it is a native of the Pacific coast, in Russian America—that it is a distinct variety—that it has the largest seed of any known specimen of grass—that, if climatized, it would be very valuable for grazing stock, for making hay and for enriching exhausted fields. We have now about 40 acres in this grass, from which I expect to raise seed enough to supply such as may wish to cultivate it, with a peck each, which is plenty for a start. This grass, followed with our corn-field pea, can reclaim every old field in the South—can make them produce as well as they ever did, and that for ages to come. They can give us all the manure our fields require, and pay us richly to use them besides. In fine, they can make the South the Eden of the world.

This grass has the following extraordinary properties, which places it far ahead of any other known variety:

1st. It has the largest grain of any known species of grass, being nearly as large as wheat.

2d. It will grow (on very rich ground) from three to four feet high.

3d. It is never injured by cold—no freeze hurts it.

4th. It is never troubled by insects of any kind.

5th. It is never injured or retarded in growing by heavy rains, overflows or ordinary drouth.

6th. It grows as fast as Millet or Lucerne.

7th. It is as nutritious as Barley, and stock are as fond of it as they are of that.

8th. It will keep horses, mules, cattle, sheep, goats hogs, and poultry fat, throughout the winter and spring, from November to June.

9th. It will then (the stock being withdrawn, and the ground being rich) yield from four to six tons of excellent hay per acre.

10th. It saves corn and fodder being fed away to stock during the winter and spring.

11th. It completely protects fields from washing rains.

12th. It enables farmers to have an abundance of rich milk, cream and butter, with fat beef, mutton, kid, pork, turkey, and chickens for their table.

13th. It will (if followed by our corn-field pea) give to farmers the cheapest, the surest, and the most paying plan to reclaim worn out fields, and refertilize those not yet so, which the ingenuity of man can devise.

14th. It will sow its own seeds after the first time, without expense or trouble, thereby reproducing itself through its seeds on the same ground an infinitum.

15th. It does not spread or take possession of a field, so as to be difficult to get rid, but can be effectually destroyed at any stage before the seed ripen and fall out, by being plowed up, or under.

This grass, having the above enumerated properties, will be found, by all who cultivate it, far superior to any other species ever introduced, or which can be introduced, for the climate and soil of the South. I shall be prepared by July next, to furnish seed of this valuable grass to all who desire to cultivate it. My price is $5 per peck, which is as much as is necessary to begin with; it being distinctly understood that in every instance where the party is not satisfied (after giving it a fair trial) the price shall be returned.

Your obedient servant,

B. V. Iverson.

N. B.—Mesrs. D. B. Plumb & Co., of Augusta, are authorised to obtain names of persons who may wish to procure seed, which will ensure their getting them.

B. V. I.

P. S.—I called it "Rescue Grass" before I found out its correct name.

Columbus, Ga., March, 1854.

COTTON--MODE OF CULTIVATION.

The position is taken, that the cotton plant is not easily suited in soil and climate, and that "the best cotton lands are of a deep, rich, soft mould—a medium between the spongy and sandy." According to my way of thinking, cotton grows and yields according to fertility on almost all soils in this latitude. No one would say, the orange is not easily suited, because it requires climate. I have seen cotton doing as well as could be expected on the red clay and sandy flats of Carolina and upon the stiff, hard bottoms of the bayous in your State. The best cotton lands I ever saw, are as stiff and as hard as most clays get to be; it is true, though, before the summer is over, the plowed land is as light as an ash bank, but after the winter rains, it is again hard to plow, and where not plowed, it is hard all the year, except when wet. I object to such sayings, though only practical as to soiling lands. I object to the quantity of seed sown; I have sown twenty-three crops, and have never yet used one bushel per acre, and have planted crops with a half bushel per acre. I am very particular to put my land in good order, open very shallow, and more by pressing on the earth than plowing. I either step-drop seed, eight to twelve in a place, or drill seed very thinly. My reason is, I can save a bushel per acre and have every seed sound, not injured in the least. A thin stand is less subject to die out; will stand the cold mornings best, and the land is easier cultivated, as the stand is easier thinned. I cover with a heavy block, more by compressing earth to the seed then by covering with earth. This leaves the land in fine condition for the plow or the hoe.

Other matters in which I differ with many: plowing lands in the water, with the expectation that winter freezes will pulverize the earth. I would ask those who have tried it, their experience. In 1840 or '41 I had about one-half of a field plowed in the fall; next spring, when bedding up, I discovered, whenever the plow came to the plowed land, it always tended out of the land, and the plowman invariably declared it was difficult to keep the plow in the earth, the land was so hard. Is this according to reason? At the North, where there are freezes, or a freeze all winter, the land is mellowed the depth of the freeze—not much rain, or it falls on frozen earth. In latitude 30 to 33 degrees, our freezes are few and far between, not over an inch or so, followed by torrents of rain, which dissolves a portion of the soil, washes other portions, and followed by dry weather, when the land having run together and bakes about as hard as land gets to be. I ask for examination, and I think no more plowing will be done before March than is necessary to the planting of corn and oats. I prefer doing as much plowing after winter rains have passed as is possible.

Yours, with respect, M. W. Philips.

[*Southern Organ.*]

From the Southern Cultivator.

FIRE-FANGED MANURE.

The season of the year has arrived when stable manure is prone to fire-fang—a chemical change that lessens its value from 50 to 60 per cent. To prevent such a loss is an object of much importance in farm economy, and we will endeavor to explain the subject in a way that will render it plain to all interested in providing food for plants.

Few are ignorant of the fact that a mass of dung thrown from a stable, and particularly that from horses and mules, is apt *to heat*, and sometimes it proceeds to spontaneous combustion. This heating is not injurious, if only moderate in degree, for it always precedes, and attends fermentation, whether vinous or putrefactive. The latter is what the skilful farmer desires to increase the solubility of manure; for Nature *rots* vegetable and animal substances to prepare their elements for reorganization in the cells of living, growing plants. Fire-fanging is a peculiar chemical operation analagous to burning wood into coal, or charring hay and straw by imperfect combustion. It not only checks putrefactive fermentation in a manure heap, but drives off in a gaseous state all the nitrogen and ammonia it may contain. Half burnt dung and straw, (fire-fanged manure) refuses to ferment, rot, or dissolve for the nourishment of crops, for a long time after it is buried in tilled ground. Hence, it is not too much to say that a farmer who allows his dung-heaps to fire-fang really loses narly three-quarters of the value of the same, and often more than that.

How one can best prevent this excess of heating is the point now to be considered. It is done simply by spreading the manure over a greater surface so thin as not to heat at all, nor ferment, but thicker or thinner according to the weather and the nature of the manure. To adopt the language of farmers, some excrements are of a more heating nature than others; and no one rule will apply to every condition and composition of the dung-heap. It should not, however, be long exposed to the open air, rain, and sunshine, but be covered over with loam, clay, or vegetable mould. In this state Scotch farmers call their dung-heaps "pies;" the covering of earth being the upper-crust, and one of clay or leaf-mould being the under-crust. The right management of these "pies" is quiet as difficult as the management of a coal-pit, or burning brick-kiln. All air must not be excluded, for that would arrest decomposition. To learn the condition of the mass, the farmer sticks a stake into it, which being drawn out, he learns from the steam, gases and temperature of the air that issue how his pie is baking. If the heat is too great, the heap should be forked over immediately to cool it, as you would separate the sticks in a burning brushheap; or you may cover it deeper and closer to exclude air as you would close the draft in a coalpit, a lime or brick-kiln. If water is convenient, make stake holes into the heap and pour water into them just enough to put out the latent fire below.

To avoid all loss and labor of this kind, we prefer to haul most of our manure in a raw, unfermented state, into the field, spread and plow it in at once, and let it rot in the soil. This course is not always practicable, and the dung has to be preserved in some form for future use. To have it rot, and at the same time decompose a good deal of corn-stalks, straw and forest leaves, mixed therewith, and lose nothing of its volatile elements, is the end to be aimed at.

D. LEE.

ADVANTAGES OF SHELTER·

In selecting a site for a country residence, many persons choose an elevated situation. And with good reason. Such sites furnish a dry and pure air, and are therefore healthy; they furnish wide prospects of the surrounding country, and are therefore pleasant; and the facilities they afford for drainage, assist very much to the successful tillage of the soil.

And yet, pleasant and desirable as the hills are in many respects, they are neverthless exposed to the violence of the winds—a circumstance of no small account in choosing a place of residence in our northern latitudes. It is the well known effect of wind in passing over any heated object, to cause it to part rapidly with its caloric. The child learns this lesson in natural philosophy very early, since he no sooner burns his fingers, than he falls to blowing lustily upon them. And so, whenever the wind sweeps over our fields, it rapidly abstracts heat from the soil and from the animals and men that live upon and cultivate it. Every one has noticed in the spring, that the grass starts up fresh and green, on the southern and sheltered side of his house, while on the northern side, the earth is yet locked up in ice. In a field exposed on all sides to the wind, if but a slight knoll projects here and there on its surface, the part shielded from the cold storms is the most fertile, and soonest green in spring time.—Valleys protected by high hills, and the slopes of those hills looking southward and eastward are warmest in winter; and spring begins to smile in such places before the hill-sides looking to the north and west have got rid of their banks of snow. In unprotected grounds the blossoms of tender fruit are often destroyed by high winds; the flower garden, even in mid-summer, is not seldom despoiled of its beauty; grains and grasses are badly lodged; and in autumn, heavy laden fruit trees are often injured, if not destroyed.—Newly planted trees are often racked out of their perpendicular, if, indeed, they are not thrown quite out at their roots; and many a choice shade tree, which, in a favorable situation, would have thrown out its branches equally on every side, and formed a crown of sylvan beauty, is twisted out of all proportion, stunted in its growth, and made an eye-sore and a disappointment to the hand that planted it.

A Scotch gardener, writing lately to an English Agricultural paper, on a subject kindred to this, speaks with much feeling of the injuriou effects of the east wind on the fruits and plants of this region. He refers, by way of illustration, to a field near Edinburgh, where "the trees on one side (that facing the east,) have no branches whatever, not the slightest twig; the whole growth tends toward the west. It would seem as if the boughs on the east side had been completely cleared off by the knife; but it is by the east wind."

Houses, also, which are built on bleak sites, are much colder in winter than others differently situated. The winds not only howl around the walls, rattling the windows, and even shaking the building to its foundation, but come in at every crevice, and render the exposed sides sensibly uncomfortable. They lower the wood pile and the coal bin quite rapidly.

Now, is there any remedy for this inconvenience and disadvantage? There is not room for all of us to live in the warm valleys and the sunny nooks under the sheltering hills. Some of us must pitch our tents in the very teeth of Boreas. And moreover, some persons have no special fondness for valleys. They wish to get up in the world, and to see more of it. They want to catch the earliest rays of the morning, and the last of the setting sun. They delight in broad landscapes, and an unbroken horizon. But as such persons feel the wind as much as others, they must endeavor in some way to shield themselves from it, or at least to break its violence. This can be done, in a good degree, by providing artificial barriers. High fences will answer a valuable purpose. Belts of trees, deciduous and evergreen, will break off the wind from large tracts of land, and render the climate therein comparatively mild and equable. The effect of a screen of evergreens, particularly in breaking off the wind from houses and grounds, and in modifying the cold of winter, is far greater than one supposes, who has had no experience in this matter.—It is said by those who have made the experiment, that the expense of planting such trees about a house is soon covered by the saving of fuel occasioned by the shelter they afford. Such belts may not break off all the winds that blow, but they will soften their asperity, and apparently mitigate their coldness.

Experiments of this kind have been tried on sea shores, and with success. A recent traveler speaks of a certain spot in England, on the cliffs of the German Ocean, which had formerly been a bleak, sterile promontory, but is now a beautiful and productive garden. And this transformation was effected by building on the exposed sides first, "a strong high fence of furze bundles or brushwood, and then planting inside of this a thick screen of trees. The outer belt was composed chiefly of the Norfolk Black Sallow, a hardy and rapidly growing tree, making, it is true, no pretensions to beauty, but answering well as a nurse for other trees." Inside of, and mingled with these, were set the Black Italian Poplar, the Scotch Elm, the Larch and the Ash. And of evergreens, the Pinus Pinaster and Scotch Pine. Of shrubs, there were planted the Snowberry, Elder and Berberry. In connection with these provisions for shelter, the ground was trenched and manured. Nor was this labor in vain. In a short time this place became the joy and pride of its owner, and the wonder and admiration of all who beheld it.

We have an illustration of our general subject in the climate and fertility of the Isle of Wight. In this case indeed the shelter was formed by nature, and not by man. Travelers tell us that the southern part of this island is "backed by steep hills sloping to the sea. In these soft, warm, smiling, inviting dells and dingles, I met with half tropical foliage, so deep, graceful and luxuriant as I never saw before anywhere in the world. The climate is nearly as mild as that of the Mediterranean, and the plants and trees of Southern Europe grow here without protection in winter. I was told that roses bloom here throughout the entire year. This softness of the climate must be ascribed chiefly to the shelter of the hills on the north, and to the equalizing influence of the sea on the south."—[*See Olmstead's "Walks and Talks,"* and *Downing's Letters from England.*]

An illustration still more in point may be found in the case of Mr. Tudor's garden, at Nahant, in this country. Most of the readers of this journal doubtless know that Mr. Tudor determined, several years ago, to create one of the best of gardens on one of the bleakest spots of the Massachusetts sea coast. In the face of driving winds and a salt spray which blew across the whole promontory, killing almost every green thing, this heroic horticulturist threw up artificial barriers, which served to break the force of the winds, and to sift them of their salt. Mr. Downing gives us the following concise description of Mr. Tudor's contrivance: "It consists merely of two, or at most three parallel rows of high open fences, made of rough slats or palings, nailed in the common vertical manner, about three inches wide, and a space of a couple of inches left between them.—These paling fences are about sixteen feet high, and usually form a double row (on the most exposed side a triple row) round the whole garden. The distance between that on the outer boundary and the next interior one, is about four feet. The garden is also intersected here and there by tall trellis fences of the same kind, all of which help to increase the shelter, while some of those in the interior serve as frames for training trees upon.

The effect of this double or triple barrier of high paling is marvellous. After great storms, when the outer barrier will be found covered with a coating of salt, the foliage in the garden is entirely uninjured. It acts, in short, a rustic veil, that admits just so much of the air, and in such a manner as most to promote the growth of trees, while it breaks and wards off all the deleterious influences of a genuine ocean breeze, so pernicious to tender leaves and shoots."—[*Horticulturist*, vol. ii., p. 58.]

But enough has probably now been said to illustrate, in a measure, the importance of shelter, and to suggest some of the methods by which such protection may be secured. We need it at all seasons of the year, but especially in winter. We need it for the comfort and pleasantness of our homes, for the comfort and health of our laborers, and of our domestic animals, and for the complete success of our attempts to cultivate well the earth. G.

Country Gentleman.]

THE WAY THEY MAKE HOT BEDS IN GERMANY.—Take white cotton cloth, of a close texture, stretch and nail it on frames of any size you wish; take two ounces of lime-water, four ounce as linseed oil, one ounce of eggs, two ounces yolk of eggs, mix the lime and oil with very gentle heat, the eggs well separately, and mix them with the former; spread the mixture with a paint brush over the surface of the cotton, allowing each coat to dry before applying another, until they become water proof. The following are the advantages this shade possesses over a glass one:—1. The cost being hardly one fourth. 2. Repairs are easily made. 3. They are light. 4. They do not require watering; no matter how intense the heat of the sun, the plants are never struck down or burnt, faded or checked in growth—neither do they grow up so long-sick and weakly as they do under glass, and still there is abundance of light. 5., The heat arising entirely from below, is more equable and temperate, which is a great object. The vapor rising from the manure and earth is condensed by the cool air passing over the shade, and stands in drops on the inside, and therefore the plants do not require as frequent watering. If the frames are large, they should be intersected by cross-bars about a foot square, to support the cloth. These articles are just the thing for bringing forward seeds in season for transplanting.—*Plough, Loom and Anvil.*

From the Ohio Farmer.

HOW TO SAVE MANURE THAT WILL YIELD 100 BUSHELS OF WHEAT.

BY L. V. BIERCE.

MR. FARMER:—I have said a family of six persons could, by saving all the *house slop* that usually goes into the drain, make manure enough to produce one hundred bushels of wheat.

Without a close examination, this will appear like a wild estimate, or rather, like an assumption requiring proof.

All manures are *rich*, as I have heretofore shown, in proportion to the amount of ammonia they contain. If manures lie around the yard, and the gaseous ammonia is suffered to escape into the atmosphere, they are but little better than dry bones, or *tan* from which all the coloring matter has escaped, leaving only the woody fiber.

It is a common, but mistaken idea that, passing food through the body, gives it a fertilizing principle. This process only decomposes it, and fits it for the use of vegetation. A larger amount of manure, and possessing the *same quantities*, would be produced by rotting it in a compost heap, where the gasses are preserved, as by passing it through the body of an animal. Generally the manure of the compost heap, is the best; for then all the *nitrogen*, which is the basis of ammonia, is preserved; while in the ordinary way of suffering dung to lie around the yard, it mostly escapes, thus loosing the most fertilizing portion—the nitrogen—contained in the food.

All manures, I have said, are rich in proportion to the ammonia, or nitrogen they contain. Let *guano* be spread out, until the nitrogen has escaped, and it is no better than dry cow dung. That article is tested, chemically, in the market, and is valuable just in proportion to the nitrogen contained in it. A crop of clover plowed in is far better manure than a crop of straw, because clover contains a far greater per cent of nitrogen. So, the manure of the hen house, is far richer than that of the hog-stye, and that of the hog-stye, far richer than that of the cow yard, because the bugs and worms constituting the food of the fowls contain more nitrogen than does the food of hogs, and the food of hogs contains more than hay on which cows are kept.

It is not the manner, then, in which the decomposition takes place, but the constituent parts of the food that give richness, and value to manures.

Nitrogen is indigestible. In the comsumption of food in the body, about one half of the organic substance of it is given off by the process of breathing, sweating, &c., through the lungs, and the pores of the skin. Nitrogen remains unconsumed, and almost wholly unchanged, passing off in the *urine*. It is this which gives it its peculiarly offensive smell.

By far the largest portion of nitrogen contained in the food passing off in the urine, we see the necessity of saving it as a part of the manure, if we would get the full richness of the stable, compost heap. To preserve it in the stable, the earth, under the floor, should be hollowed bowl-shaped, so that all liquids can run into it. In this should be placed straw, or other *litter*, well sprinkled with lime, to aid in decomposition, and plaster to detain the ammonia or nitrogen, and disinfect the heap. When it can be obtained, charcoal dust should also be liberally used, as it has a great affinitv for nitrogen, which it will hold in its pores for agricultural purposes.

As often as this compost heap becomes fully saturated, it should be removed, and a new one formed.

By chemical analysis it is found that each pint of *human* urine will produce a pound of wheat. By adding this to the compost heap, a family of six will add twelve pounds of wheat each day, to their wealth, or, seventy-five bushels in the year.

To the heap add, in the course of the year, 50 bushels of hydrate (air slaked) of lime, and plaster to disinfect it, pour on your dish-water, your pot-liquor, your soap suds; heap on your potato tops, your old cucumber vines, and cabbage stalks, that now disfigure your garden; spread the whole on about five acres, and plow it in, and you will be 100 bushels of wheat in a year, the richer for it.

From the Soil of the South.

MANURING LAND.

Mr. Editor: In my communcation of last month, upon the subject of farming, I endeavored to draw a paralled between two systems of farming, now being carried on in Georgia; and I think showed most conclusively, that if confined to cropping alone, the latter system had greatly the advantage. But another advantage is derived, which results more immediately to the land, by this mode of farming. I will give you one case, out of a great many, which has come under my own knowledge. C. L. Dupree, Esq., a few years since, purchased a farm in Pike county, a part of which was, as we commonly say, nearly worn out; one field in particular, which lay near his dwelling, was to all human appearances not worth cultivating.—The first year, that field only yielded about 300 pounds of seed cotton per acre. A fine year for cotton too. Mr. D. began to manure it. The first year he raised on the same field 350 pounds per acre. The second year, manured, he gathered 550, and the third 750 pounds, and another year, by the same mode of farming, he is sanguine of gathering 1000 pounds per acre.

But I will here remark, that I consider Mr. D. one of the best planters I ever saw. And is it not strange, that though there are hundreds of such cases as the one above referred to, that when the fact is pressed upon the minds of many of our planters, that they will tell you it will not pay to manure their old lands? They are no doubt honest in what they say. It may be, that my experience is too limited to express an opinion. But let that be as it may, it is my honest opinion that there is no labor performed upon a farm which affords the same profit to the planter, as that bestowed upon making, hauling out, and spreading manure. But another objection is: "the material is so scarce that I have not time to collect it together to make manure." By proper attention, there can be a much larger quantity of manure collected upon the farm in the run of the year, than any one is aware of, who has never tried it. If a planter will but make up his mind to have manure, he will find the "material" much more plentiful than at first anticipated. You will pardon the liberty which I have taken, in giving my mode of operation. I have a rake for each of my hands; and when too wet for any other kind of work, I put all hands to raking up leaves in the woods. I find the best time to do this is, when the leaves are very wet. At my leasure, I have them hauled into my lots, and stables, and when sufficiently trod upon, I put them into large pens.

I look upon the forest as "nature's vast storehouse," which affords abundant means to make manure, yet there are other auxiliaries which is a source of revenue for making manure. The chips at your wood-pile, your ashes, wheat and oatstraw, and shucks all mixed up with the leaves, will make as much manure as you can haul out and spread, in time. This will manure your cotton, and your cotton seed will manure your wheat and corn bountifully. Give it a fair trial before it is condemned by you, and I promise a fair remuneration, in fine cotton, wheat and corn, for all your labor. Try it. But another planter will say, I have some manure, perhaps enough to manure one-third of my crop, but as I have not enough to manure all, I will not manure any part at all. This would be as suicidal to his best interest as for a planter to say, who has thirty-five hogs to fatten, I have corn to fatten ten, but because I can't fatten the thirty, I will not fatten any.—No planter in his senses would think that was right, and still their course is perfectly analogous. If a planter could manure one-third of his farm each year, in three years all would be manured. This system being kept up for a number of years, could not fail to greatly enhance the value and productiveness of his land. The subject seems so plain, to my mind at least, that it is a needless consumption of time to prosecute it any further. "There are none so blind as those who will not see," so says

Your old friend,

ABNER.

* * *

Mad Itch.—Mr. Eliphay Burnham, Milford Centre, Ohio, writes us in reference to what we said in the January number, in regard to mad itch. He is perfectly satisfied that the cause of the disease is attributable to allowing hogs fed with corn cut up to run with the cattle. He says:—" Within the last fifteen or twenty years, there have been no less than twenty head of cattle, owned by eight or ten different farmers, lost by this disease, and *in every instance* they were running with hogs fed with corn cut up. I have not known or heard of a single instance of the disease, except when cattle were running with hogs so fed—and never knew of one being cured. Lard and sulphur may cure, but the safe way is never to let your cattle into a field where you are feeding hogs with cut up corn."—*Wool Grower*

* * *

Bots.—A pint and a half of strong sage tea, made very sweet with molasses. Two or three doses is sufficient to effect a cure.

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THE FARMER'S JOURNAL.

RALEIGH, N. C., MAY, 1854.

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OUR PAPER.

It gives us pleasure to state that the farmers of North Carolina, are now taking a lively interest in the prosperity of the "The Farmer's Journal," and its circulation is increasing since it has been enlarged and improved in every respect. We avail ourself of this opportunity to express our thanks to those gentlemen who have given their attention to getting an extensive circulation for the Journal. The list of agents for us, is large it is true, and they have discharged their duty handsomely, still this need not prevent any farmer who takes our paper, and is benefitted by reading it, from using his influence in increasing our circulation. We wish to see the Journal a visiter at every farm-house in North Carolina, and we feel free to say that with ten thousand subscribers, it shall not be surpassed by any paper of the kind in our country. We are constantly receiving letters from gentlemen expressing their admiration of the great improvement in our paper and giving in their testimony in favor of our efforts in behalf of the agricultural interest of the State. Scarcely a mail comes to us but we receive letters expressive of the good which the farming interest has felt from the circulation of the Journal, and we hope that it will not be considered vanity in us to publish extracts from a few of those. That we feel proud of such results we do not pretend to deny, but at the same time we say that selfish motives did not first prompt us to act. We have from the beginning felt that there was in store for us a rich harvest, though it has not come as soon as we could have wished, yet, it will come. Our determination to go on is stronger than ever before, and we shall not relax, but rather redouble our efforts and not be content, until we can see our native State the first in the Union, in an agricultural point of view, the means for this change are among us and the proper degree of energy, and intelligence, is all that is now required to bring it about.

THE NEXT STATE FAIR.

In our last number we promised to furnish our readers with the list of premiums to be awarded at the next State Fair, but we have recently received a letter from the chairman of the executive committee, in which he says that it will be impossible to have it ready until the June number of our paper. But, as we said before, premiums will be offered for the same articles as at the last Fair with some additions, and the amount for each will be larger. We take this occasion to say to those who design to compete for premiums, that they must not make any calculation from the first Fair as to what will be the character of articles in the next. We say let those who design to make exhibitions, only bring such articles as are really excellent of the kind.

COM. JONES' PRIZE ESSAY.

We lay before our readers a portion of this most excellent paper, which was read before the last annual meeting of the Maryland State Agricultural Society, and published in the March number of the American Farmer. His views upon guano are, we think, perfectly correct, and are precisely such as we have expressed frequently in relation to its use. Guano like every thing else designed for the benefit of man has been much abused in its use. We have frequently in public lectures urged the opinion that it should be used as a basis of agricultural improvement, and if repeated it should be put into compost with other manures. The very great profit which is derived from its immediate application has led farmers to apply large quantities and very frequently to the same field, which it seems to us cannot fail to give to the soil a fictitious activity which by pouring the other elements than those of which this fertiliser is composed soon renders the soil barren.

With regard to the application of stable manure as a top dressing to grass lands as recommended in this essay, we must differ with the author. That much advantage may be derived from such an application, we readily admit particularly if a heavy rain should fall immediately after the dressing has been made, for in this case the soluble salts and soluble vegetable matter would by means of the rain be carried into the soil, provided its mechanical condition were such as to allow the water to percolate freely into the soil. But on the other hand, if the application be made in the month of August, as he describes the excessive heat of the sun, must according be the best authority, we have expell the ammonia to a considerable extent.

MARTIN CO. AGRICULTURAL SOCIETY.

In a recent letter from friend a in Martin Co., we were asked why we did not publish the proceedings of the Agricultural Society of that Co. Our excuse for not doing so is that we have not the slightest recollection of ever receiving an account of the late Fair, held in that Co., and did not know that one had been held until we saw an account of it in the North Carolina *Standard* a few days since. We take great pleasure in publishing the acconnt of the Fair as given in the *Standard*, and hope our failure to lay it before our readers long since will not be attributed to a want of interest in the prosperity of the agriculture of that county ; and we repeat what we have often said before, that in our efforts in behalf of the agricultural interest of the State, we have known no east, no west, but have labored for the good of the State at large.

PARKHURST'S CYLINDER COTTON GIN.

Wetake great pleasure in calling the attention of Cotton growers to Parkhurst's Cotton Gin, which is a very great improvement upon the old sow gin, now in common use. The advantages of this machine, over any other, are plain to be seen, and it is only required that one should see it in operation to be well convinced of its great utility. The advertisement in this number of our paper states its advantages, and beside this we will state that we have seen a certificate from Thomas M. Wilkins, Esq., superintendent of the extensive cotton factory of Messrs. Butler & Son, at Rocky Mount, Edgecomb Co., North Carolina, where one of these gins has been in successful operation during the past season, and has accomplished all that the proprietors promise for it. We take pleasure in stating also, that we know Mr. Wilkins personally, and we are satisfied that he would be the last man to make a statement in a case of this kind that was not strictly true.

SUBJECTS FOR DISCUSSION AMONG FARMERS.

A correspondent from Warren county, asks information in relation to the following subjects, (who will answer him through our paper :) Objections to horizontal plowing and ditching.—The abuse of hills and ridges in the culture of our summer crops. Plans and specifications, and locations of farm buildings. A proper system of rotation of crops. The best variety of the following crops, corn, wheat, rye, oats, grapes, fruits of all kinds, garden vegetables and domestic animals. The above subjects are worthy of investigation, and we should be glad to hear the views of different farmers upon them, since it is by discussion that we arrive at truth.

THE "RESCUE GRASS."

This grass, which is cultivated to a considerable extent by B. V. Iverson, Esq., of Georgia, seems to attract the attention of farmers of the South generally. We lay before our readers a letter from Mr. Iverson to the Editors of "The Soil of the South," in which he gives its history and botanical description of it together with its proper name. We have received several letters from friends in this State, wishing us to procure some of the seed for them, and we have spoken to Mr. Hall. in this county, who is the regular agent for its sale, for three bushels; and we shall be able to supply those who have applied to us, if not with the quantity they wish, with at least one-half, which will enable them to enter upon the cultivation of this far famed restorer. Many with whom we have conversed in relation to this grass, are disposed to doubt its efficacy; they call our attention to the Gamma Grass, which at one time was much extalled in this State, which is now thought to be worthless. We tell these unbelieving farmers that they must not judge the future always by the past, and that before denouncing the "Rescue Grass," they should give it a fair trial.

OUR CORRESPONDENT BEAUFORT.

We welcome to our columns our old correspondent Beaufort, whom the readers of the first two volumes of the Journal will readily recognise, though he at one time changed his name to that of Old North State, the style was the same. We cannot fail here to remark that this gentleman now shows himself perfectly familiar with agricultural chemistry, never went to school a year in his life, and still in the face of such facts, farmers yet refuse to study chemistry for themselves.

CORRECTION.

In the article from Col. Clark, which appeared in the April number of "The Farmer's Journal," the word "South Devon," was used instead of "South Down," which was a typographical error and we take pleasure in making the correction. We hope frequently to hear from Col. Clark, for he is one of the best farmers in the State, and any experiment made and reported by him may be regarded as strictly correct.

Communications.

For the Farmer's Journal.

Doctor Tompkins:—I have read the first and second volumes of your valuable paper and do not think you have published the analysis of Indian Corn. As this is our principal crop, particularly in the Eastern part of North Carolina, I give you the analysis as reported by Professor Mapes:

Carbonic acid,	Trace.
Phosphoric acid	49.2
Sulphuric acid	0.5
Chlorine	0.3
Lime	0.1
Magnesia	17.5
Potash	23.2
Soda	3.8
Selica	0.8
Iron	0.1
Charcoal in ash and loss	4.5
	100

It is important that the farmer should know the constituents of the crop he intends to make as he can then by having his soil analysed, see at a glance, what elements are wanted to supply the necessary food. I feel the more impressed with the importance of this information to the farmer from the many blunders I made in early life when agricultural chemistry was in its infancy, and but little was known of its application to farming.

Soon after I commenced farming, in 1820, I think, I subscribed for an agricultural paper published in Baltimore, the title of which I have forgotten. I was young and inexperienced, and knew nothing of the theory or practice of farming. I was anxious to learn, and sought the conversation of old farmers of the neighborhood, and after hearing their views upon different subjects of farming, I would give them the views of the editor of my paper. I was generally met with a shake of the head and expressions of humbug, until finally I come to the conclusion that the editor was a knave, and I a fool for spending my money and time in purchasing and reading such a paper. Well, I quit book farming and looked to my neighbors for advice.—

But I found on bringing my rich swamp lands into cultivation that four or five crops only could be made before they began to diminish. I asked these farmers what was the remedy.—Some of my first cleared l ands, which in their primitive state produced eight to twelve bushels of corn per acre had became reduced to the small product of three barrels, and a gradual depreciation was going on year after year, which without some change of practice must result finally in sterility. Rest, rest, was the answer —rest was the great remedy to reciporate all barren soils. Well, I thought rest a cheap manure any how, (though not so cheap after all as many suppose,) and that the more I gain of it, the more crops I could raise afterwards. I there-rested a square of nine acres three years successively, the weeds upon which grew as high as my head. At the end of the third year I had the three years' growth wed down into tqe allies with hoes (a two horse plough could not enter the soil,) and then covered over by ploughing and hoeing. When filnshed the ridges were as large as potatoes ridges, and cost me as much labor as it would to have tilled a potatoe crop of equal size.

But I thought I had a body of valuable manure, and as I had given the land three years' rest that it could labor for me three years successively without failing. But my disappointment was great when I found that my "9 acre square," manured according to *age* and *practice*, produced in the next two crops a less quantity than it had previously done. Well, here was a case. Something was wrong. Was 9 an *unlucky number*, or was the *manure* turned under at the *wrong time of the moon?* The old farmers could not tell me. I had got into a bad scrape and must get out of it the best way I could. It so happened that I cleared up a small quantity of new ground by the side of it, and as I had seen the good effects of ashes in previous experiments, I applied ashes from the new ground upon one half of my "9 acre square." The result was a product of 31 barrels of corn on the half upon which the ashes were applied, and 14 barrels on the other half; and for five successive crops the excess produced by the ashes was not less than 50 per cent. Having experimented to my satisfaction, I applied lime and ashes to the whole of it and thus got out of the suds. What was then a mystery is now by the aid of agricultural science easily understood.—My soil was defficient of mineral elements which no quantity of organic matter could supply.—The weeds that grew upon the soil derived more from the gasses of the atmosphere but returned to the soil just such minerals as it took from it and no more. The vegetable matter was in excess, and instead of benefitting, actually injured the land by generating acids. The ashes neutralized the acids and restored the decomposition of the vegetable matter by it chemical action and at the same time supplied the following necessary mineral elements which, according to the analysis of Liebig are contained in the ash of Beech.*

Alkalies and their salts,	48.63
Phosphate of lime and Magnesia,	23.00
Phosphate metalic oxides,	2.25

Now by comparing these elements with those of corn, we can readily see why the ashes gave an increase of more than 100 per cent. But other substances besides ashes contain these elements, and after the farmer has ascertained the condition of his soil by analysis he can then determine upon the cheapest mode of supplying such as are wanted to constitute his intended crop.

I will mention another experiment. I have a small piece of ridge land which had been so reduced by constant tillage that it yielded but one or two barrels of corn per acre. The soil was one to three inches deep resting on a clay subsoil, abounding with sulphate of iron, and when dry, as hard as a sun-baked brick. It needed vegetable matter but was too poor to produce it, and was too far from my stables to be manured from that source.

By the application of mud. it finally produced a fair crop of grass and weeds which I turned under in a green state, with twenty-five bushels of lime per acre. The following year I obtained three to four barrels and subsequently by subsoilbing and turning under another coat of grass and weeds with the addition of a small quantity of manure the product was increased to six or eight barrels of corn per acre.

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* The Ash of other trees contain the same elements in different proportions.

Now, according to the theory of some of our ablest chemists, this land was benefitted more by the chemical action of the lime than from the elements supplied, for the land must already have possessed to a considerable extent, the elements of production, as the quantity supplied was too small to make so great a difference in the product.

The sulphate in iron was in access, and was injurious to crops, which the lime connected by combining with the sulphur and forming plaster of paris, at the same time rendering the iron innoxious, thereby couverting a detelerious into a benefieial substance.

I give these cases to your readers, to show the importance of having their soils analized, by which they can determine whether they are really storide or have the elements of production in a state not available, but which can be made so by the application of proper chemical or mechanical means.

BEAUFORT.

For the Farmer's Journal.

SANDY GROVE, Chatham, Co., N. C.,
April 25th, 1854.

GUANO.

DR. TOMPKINS:—I have made a small experiment with guano, upon wheat last year, and I am so well pleased with my success that I have concluded to give you the result of the experiment, and you can do with it as you may think best. I sowed six bushels of early purple strawed wheat upon dead poor land which I think has been wornout fifty years ago, though even in its primitive state it was not fertile. The character of the land is what is called with us a loose red soil. I broke the ground in August last, and sowed the wheat about the middle of October, after the land had been thoroughly harrowed with a large heavy iron-toothed harrow. I sowed first the guano and then the wheat and plowed them in with a single horse plow and then harrowed the land again. I never saw such wheat upon poor land in my life, and after it was cut and cleaned I measured one hundred and twenty-five bushels from the six bushels that was sown. The quantity of land I estimated to be about eight or ten acres and I applied eighteen hundred pounds of guano. I have used this season one ton of guano upon a poor sedge field, along side of this I sowed in wheat and guano last year, and there is not much difference now in the two pieces. I am well satisfied that a man can by the use of guano upon poor land make a fortune sooner than he can from clearing new land, though it may be rich. The quantity of wheat which should be sown is about a half bushel to the acre of land.

Very respectfully, yours,
WM. ALBRIGHT.

FALKLAND, Ala., April 8, 1854.

DEAR DOCTOR:—I enclose you a gold dollar for this year's subscription to volume 3d of the Farmer's Journal. I wish I could send you *ten* instead of *one* of them, but it is impossible. Most of my friends take from one to three agricultural journals. The Southern Cultivator, the Soil of the South, and our Alabama American Cotton Planter, are most popular here, and have pretty well supplied the demand for the present.

Now, as I subscribe to a great many agricultural and other Journals and papers, if I insist too much on my friends subscribing to other papers, they make similar excuses to the one I will relate here.

A friend of mine, a Mr. B. of Mississippi, and a great friend to William A., remarked to William on one occasion, that "he was a young man, and had just commenced planting for his mother and himself, he ought to obtain all the information and assistance he could relative to his profession, and let me advise you to take the Southern Cultivator, a first rate paper, only one dollar a year subscription."

William reflected seriously for a few minutes, and replied with much earnestness of manner: "There is Mr. S., [in whom he had the greatest confidence,] *he takes and reads all the papers and I can beat him farming;* I do'nt want to subscribe to any agricultural paper." He seemed to think Mr. S.'s ill success was caused by reading the papers, which was partly true, because he did little else but read papers. He took no interest in his planting operations, very rarely ever tried an experiment, or gave an order to the overseer, who was usually an inexperienced young man, who was not stimulated to exertion either by his employer or the hands. With such management, and thin land, Mr. S. in his easy chair reading the papers, and the overseer asleep perhapse in a corner of the fence, and the negroes idling away their time, it was very natural he should be the sorriest planter in the neighborhood.

William's reply was too true to be denied, and Mr. B. was "taken on a non-plush, (as William's father, who was illiterate, once said to a young man who asked him for his daughter,) and had nothing more to say to him on the subject.

Mr. B. could have replied to him, that he took many agricultural papers, wrote for them and worked by them, and read more than any man in the neighborhood, and was the most successful planter for ten miles square. My friends tell me sometimes, to stop some of my papers: that I take too many; that I cannot read all of them, and that if I could, and were to undertake to farm "after them," I should confuse myself, the overseer, the hands, and make perfect failures.

I dare say, there is some truth in their remarks, but, as long as I am stimulated to industry and to take interest in my business, and made more contented to remain at my bachelor's home by reading them, and also, sell my neighbors corn occasionally, and raise more hogs than they do, &c. I shall not stop any of them. The fact is, I do believe I should not enjoy planting much were it not for the agricultural journals, and literature, and the county and State Agricultural Fairs, in the several State.

A planter will soon get behind the age, who does not read up and keep up with agricultural literature.

Excuse me for the remark, but let me assure you, it is my candid opinion, that the North Carolinians, and I am a *Nash man,* and have a right to judge, are farther behind the age than any people in the United States, and are more difficult to be aroused to a sense of their vital interest, no matter where they reside, in or out of the State, than any people in the United States. And, a proof of it, is the indifference with which they regard *your Journal* and *efforts in their behalf.*

And what is the reason? Because the mass of them are like William A.; they are afraid to be enlightened—they fear knowledge. It is a great bug-bear to them. As William's father said, it *non-plushes* them. After a few more State Fairs, I am in hopes they will get used to being *non-plushed*, and will stand up to you, and the Journal, and their own interest better than they have done.

Your obedient servant,

N. T. SORSBY.

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KINSTON, Lenoir Co., April 17, 1854.

DR. JOHN F. TOMPKINS—*Dear Sir:* The first number of the 3d vol. of your excellent paper, the Farmer's Journal, came safe to hand, and a most welcome visiter it was, I assure you. Enclosed you will find two dollars, one for myself and the other is for a new subscriber, the only one I have been able to procure, as nearly all of my neighbors are already subscribers, and they are going to renew there subscription.—Those that are not subscribers to the Jouanal do not believe in this great humbug, "Book Farming," they say it will not do, my father did'nt do it and I shall not.

As I did not subscribe for the Farmer's Journal until about the close of the first volume, I have never been able to procure the first number of that vol. I have written to you twice and at that time you had none on hand, but now I hope you will forward it to my address.

This is court week in Lenoir, and I will try and procure some more new subscribers and forward them with the cash if I am so fortunate as to get any.

I am truly yours,

SAM'L H. ROUNTREE.

Northampton Co., N. C., April 22, '54.

Dear Sir: Enclosed you will find a dollar, for which I wish you to send the Journal to Mr. William J. Taylor; his Post Office is Jackson, Northampton County, N. C. Doctor you would be highly gratified to see the beneficial effects the Journal has produced in this County. I think I can safely say that there is five times as much manure here this spring as there was last, owing I think almost entirely to the circulation of your valuable paper. Nearly all of my neighbors take it except a few old fashioned farmers who are already too wise to be instructed. I am highly pleased with the improvement you have made in your paper; it has done a great deal county; rest assured that I will do all I can for its circulation.

Yours truly,
JOS. BARHAM.

P. S.—Send him the first number of the 3rd Volume.

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Mount Hope, Greene Co., N. C.
April, 21st., 1854.

Dr. Tompkins:—If the acknowledgement of an obligation is due for a benefit received; the people of North Carolina, should no longer withhold their's from the "Farmer's Journal."

It is worse than useless for them longer to deny the influence of "Book Farming" in our agricultural improvements; and I am proud to say that those old superstitious notions are fast receding, and I find that where the Journal circulates most the farms are improving most.—And I do hope that every farmer in the State will make the same acknowledgment, by enclos-to you the amount of subscriptio and have the Journal forwarded to him.

Wishing you much success, and many new subscribers, with a renewal of all the old ones.

I am, yours,
Very respectfully,
C. JOYNER.

Errors.—In the article of Beaufort the last two sentences were printed without correction of the proof—13th line from the bottom should read, "Sulphate of iron was in excess,"—12th line from bottom, *connected* should be "corrected,"—4th line from the bottom, *storide* should read "sterile."

Miscellaneous.

MANURES.

[*An extract from Com. Jones' Prize Essay.*]

What I have to record under this head, I will premise by endeavoring to correct two very prevalent errors in regard to *Lime as a manure.*

First then, Lime, practically speaking, is not of itself a manure, yet at the same time no soil, other than alluvial, annually flooded, can be certainly fruitful and *permanently productive*, that does not contain a due portion of lime of some form or other, to be absorbed by the rootlets of plants for the perfection of both straw and grain. I have known some curious blunders and detriments to the progress of liming, by the use of *lime as a manure in comparison* with strong putrescent manures; for instance: a shovel of each was, by a novice, put on the hills of alternate rows of corn. The result of such ill-judged experiments need not be told.

Another common error, and one little less fatal to the general use of lime as an auxiliary renovator, is that it must be applied in quantities so large as to interdict its use by most farmers who derive support entirely from an exhausted soil. I was a great sufferer under this popular error. When I commenced farming, there were but few if any native periodicals devoted exclusively to agriculture, and adapted to the wants of our own country, consequently we had to look abroad for agricultural light, which, when received, was illy adapted to our resources, our climate, or our worn out lands.

The English works with which we were most familiar, told us of liming by the 1, 2, 3, 5 and even 860 bushels per acre; and in Pennsylvania, where liming was first brought into much use in the United States, 40, 60 and 120 bushels per acre were generally administered.

I commenced with about 40 bushels per acre, and I have, occasionally, applied 60, and as much as 80 bushels on one occasion. The result was highly satisfactery in each case, but the expense was entirely beyond the means of most farmers. Long experience and close observation have satisfied me that lime in far smaller quantities tha is generally supposed, may be applied in various ways and with great advantage. I had good results and lasting benefits from the application of as little as 15, and even down to *five* bushels of fresh burned lime per acre, mixed with three or four times its bulk of *road* scrapings and even of virgin soil dug out of banks on road sides, spread on grass lands in Autumn. Lime neutralized by clay or earth forms a most valuable ingredient for making compost; indeed a single bushel of lime well mixed with ashes, dry earth and the like, to prepare it by sowing by hand, applied to one acre of wheat and harrowed in with it, on land destitute of lime, will have a very salutary effect in hardening the straw and producing well filled heads.

The mode of applying manures being a subject of such diversity of opinion among the best farmers, I feel some distrust in recording my own experience. Some plow it in as deep as they can, some shovel or harrow it in, and some top-dress by spreading it on the surface and particularly on grass lands, and there let it lie—some do these things in the spring-time, some in winter, and some at seed-time, and a *few*, *directly after harvest or mowing.*

The result of my own experience, after a fair trial of *all* the modes practiced or recommended, is that manures should be kept near the surface within the reach of air, light, heat and moisture. There are some exeeptions to this general rule, for instance, when rough manure is used in the drill (the best mode for raising Irish Potatoes in the tide water counties of Maryland and Virginia,) it must be buried deep; so too, when applied to the corn crop, it must be spread thick on the surface and deeply turned under.

This last practice I seldom pursue now a days, and for two reasons, first the difficulty and cost of hauling such a bulky article any considerable distance in spring-time before the ground has become settled after the alternate freezing and thawing of winter, and the great damage done to roads and fields traversed at such season.

Moreover, I do contend, the opinions of many to the contrary notwithstandiug, that the rough manure of the farm yard, of a winter's accumulation, removed in March for the corn field, if suffered to remain in the yard, occasionally strewing plaster of Paris and sulphate of Iron, (copperas) over it until more thoroughly decomposed genial heat of Spring and early Summer, although it might lose fifty per cent. in bulk, one load of the thus concentrated manure would be equal, as a fertilizer, to four of the rough mass in which it was found in March.

This is a subject of peculiar interest to the owners of large farms, say of 500 or more acres. Let any one count the cost of manuring ten acres of land for corn, with manure to be hauled 1200 yards from the farm yard, in the months of March and April, and he will find that he had better sell the extra teams he keeps for such hauling, and lay out their value in lime and and some of the highly concentrated manures, than to continue the old practice.

I shall be asked how I expend or apply home-made manures. I will tell you in as few words as I can. In the first place, I have, as the reader may remember, a standing farm-yard or cow-pen in which my cattle are penned every night, winter and summer. The pen is surrounded by stalls for the milch cows and work oxen, while the young and dry cattle have shelters under which they retire at will. The centre of the yard is concave, so as to retain all liquids that fall into it, while there is dry ground round and about, for the cattle to stand or lie down. This yard is abundantly littered with straw, corn-stalks, &c., from early autumn until late in the spring. Back of my horse-stables, there are close receptacles, where the horse-litter is deposited, morning and evening.

This last manure is applied exclusively to top dressing mowing grounds in early spring and autumn, but the best time of all is as soon after mowing as possible, although it be under the burning sun of July or even August. This idea will, doutless startle many practical farme and professors of the art and science of farming, as much as it did me when first recommended by an eminently successful English farmer still living in this State. At first, I thought my friend was quizzing me, but he became so earnest and entreated me so hard to try it, if with one load only, that I consented, and applied it on a piece of fresh mowed timothy meadow, neither high nor low ground, and at the rate of only 5 cart loads per acre. The result was a heavy second growth, equal to half the first crop, and when in August, the part so dressed might have been mowed, the stuble of the undressed portion was not hid by the after growth. The crop of the succeeding year was 20 per cent better than on land of the same quality top-dressed in the usual way and time.

Traveling in the State of New Hampshire a year or so afterwards, on a farm where was growing the best Timothy I have ever seen in New England, I saw wagons in August, hauling cured grass from the meadow to the barn, and returning with manure from the barn to the meadow. My farm-yard or rough manure is applied chiefly to the Potato crop, planting at convenient seasons through the months of March, April and May. The fine manure of scrapings, is worked into composts and applied to Corn in the hills, to garden and field crops, such as Ruta Baga, Beets, Carrots, &c., and to Oat and Barley ground, sowed broadcast and harrowed in, to Buckwheat and Turnips in July, and to Rye and Wheat at the time of sowing.

Having said thus much about manures of the farm-yard, the practical farmer must choose his own time and method of using them according to the circumstances in which he is placed.

Of all the concentrated natural and chemical manures, now in general use by farmers and gardeners, Peruvian Guano is decidly the favorite. It may not always be so. It ought not now to be the case. That upon extremely poor lands, incapable of vegetable production without the use of powerful stimulants, 200 lbs. of guano per acre will produce an astounding crop of wheat, &c., cannot be denied; and if clover seed be sown with the fall crop, or on it, in early spring, a fair crop of clover may follow next year, if the season be favorable, and if that clover be well plastered and ploughed down in June, and again ploughed and seeded with rye or wheat in August or September, there will be an improved base to work on, by a regular rotation, such as I have already laid down, which must be pursued, or the benefits of the guano will be lost, and the land will be in a worse condition than ever. But guano should not be applied the second time to the same land, unless in combination with other fine manures; nor should it ever be applied in its crude state to land that is in good heart, i. e., land that will bring thirty bushels of Indian corn, or 15 bushels of wheat per acre, without it, not but that guano on some such land might increase the product of both wheat and corn enough to pay for itself, but if it should, the soil will be robbed of its fertility, and will be left in a far worse condition than when the guano was first applied; at least, such have been my own results in its use, and such is the universal character of guano in Peru, as I there learned upon personal inquiry, from the mouths of all persons (with whom I conversed) engaged in gardening and agricultural pursuits around the city of Lima, the capitol of Peru, from whence we obtain the best guano. I have frequently been in Peru, first in 1825, again in 1842–3, and more recently in 1848, and on each and every occasion, I took the greatest pains to obtain all possible information as to the value of guano as a manure, and the mode of applying it to field and garden culture, as well as to its *effects upon the land*, and with one accord and without a solitary exception, I was told that land stimulated by the use of guano, soon became utterly worthless, unless the stimulus was kept up by repeated applications. This was the reason assigned for so little use made of guano, where the cost of the article is merely nominal, not exceeding more than half what we willingly pay for leached ashes in the District of Columbia. Of all the concentrated manures for sale in our seaboard cities, crushed bone or bone dust is undoubtedly the best; its effect on the soil is both prompt and permanent; at least, a single application made by me 15 years ago is still quite visible, although the ground has been heavily cropped ever since.—I found that 1 bushel of crushed bone was equivalent to one double horse-cart load of good farm-yard manure. Forty such loads is the least that will enrich an acre of worn out land sufficiently for a good crop of corn, hence at the present price of bone dust, that manure is beyond the means of most farmers for the renovation of poor lands.

Poudrette, of the Lodi, New Jersey works, is an excellent manure for forcing vegetables to early maturity, hence its great value to market gardeners in the vicinity of cities, but like guano, it imparts little or no abiding fertility to the soil.

Chappell's Fertilizer has opponents as well as friends. Its effect does not appear to have been uniform in the hands of different persons, nor even when applied by the same person at different times. Such discrepany is not very marvellous, since we know of no human agency that can by any possibility, produce precisely the same results in the product of the soil, every year, for a series of years. If this be true, and no practical farmer can gainsay it, ought the fertilizer, any more than guano or other manures, all variable in their effects, be condemned and thrown out of use?

The cost of the Fertilizer, $1,00 per 100 lbs., is too high for farmers in general, 600 lbs., per acre being necessary to bring very poor land up to a productive state. I am now in my third year's free use of this chemical preparation, with highly satisfactory results in every instance, the cost being the only objection so far with me.—But even this is much reduced when the prolonged beneficial effect of this renovator is duly considered with that of guano. The first two years I used the Fertilizer (Chappell's) I put two barrels or 600 lbs. to the acre, without admixture, but on account of expense, about a year ago, I commenced a more economical use by its admixture with cheaper substances, obtained without money, such as rich earth, or fine manures sufficiently pulverized to be conveniently sowed by hand.

Of the phosphates of lime, to be purchased in most of the large cities on the seaboard, I have only used Chappell's *Bi* Phosphate of Lime, 100 lbs. of which, in combination with other more bulky substances, to be sowed broadcast by hand and harrowed in with small grain or sowed in the drill, and dropped in the hill for corn and all sorts of roots, makes one of the best manures I have ever tried.

Plaster of Paris, slaked lime, wood ashes and common salt, combined in due proportions, may after all, at the same or less cost, be more profitable to the farmer, than any manure yet known.

Considering lime as the only sure foundation to any good system of farming which may be adopted for the renovation of lands exhausted by injudicious culture, I will devote a few lines to that particular subject, by stating what I would do, if I had my work to go over again, and which, of course, I recommend to all other beginners in their efforts to improve worn out lands.

First, then, when your land has been well broken up for corn in the *Spring of the year*, *spread* on it from 30 to 60 bushels of dry slaked lime. If you are near enough to kilns to get the *fine* lime fresh drawn, and can get it on the land before it slakes, thirty bushels of that sort will be still better than the larger quantity slaked, but be very careful not to let your lime get wet before it is spread and *harrowed* in—If you are so remote from lime-kilns as to be able to haul only one load a day, it will be better to buy the fresh burned and best lump lime, because in that state it is much lighter, and when water slaked, will increase from three to four-fold. Such lime ought to be put under cover and slaked immediately with strong brine. Lime of the quality described, and treated accordingly, acts very *promptly*, mechanically as well as chemically; mechanically, in reducing stiff, rigid clay to a loose friable texture, and chemically, by neutralizing acids unfriendly to vegetable production, and by combining with loose and light soils, they are rendered more adhesive and retentive of moisture; in other words, lime judiciously applied to stiff land renders it light, while it gives to lands *too* light, a firmer or more compact texture. This dogma, paradoxical as it may appear to many, is fully established by every brick chimney or stone dwelling in the land. All who build such houses know that lime and sand (the latter largely predominating in all light soils,) with water, are materials used by masons for the formation of mortar, which in a short time becomes as hard, if not harder than the bricks. It is also well known that if stiff clay or rich mould were to be used with lime for mortar instead of sand, that when dry, it would moulder away and become impalpable dust. Now with these plain truths before us, it is only necessary to apply smaller portions of lime to our lands according to their texture, and we can have stiff or light land as we may choose or will it.

Most writers on lime applied to agriculture, and many practical *liming* farmers too, recommend doses of 50 or 100 per cent on the previous dressing, until you get up to 120 bushels per acre at the end of the 8th year. I have not done so, nor do I consider it absolutely necessary or always expedient at such short intervals. Better extend the time according to my cycle of six shifts, applying the lime to your corn land in any convenient quantity, not less however, than you commence with; 30, 40, up to 60 bushels per acre. Finally and emphatically, be it remembered, *that if your land is naturally deficient in lime, that deficiency must in some way or other, be supplied*, or you never can reap the full benefit of manuring your crops, particulary wheat will be uncertain in quality as well as in quantity, without lime, however rich your land may be, and in time of drought your crops of all descriptions may fail entirely, whereas, on judiciously limed land, similar crops under like circumstances, will escape almost unscathed.

THOS. AP. C. JONES.

FAIRFAX COUNTY, VA., OCT. 1853.

MARTIN CO. AGRICULTURAL SOCIETY.

In accordance with a previous resolution of the Society, a Fair was held in the town of Hamilton, on Thursday the 10th day of November, A. D., 1853, when the following premiums were adjudged to the successful competitors:

ON AGRICULTURAL PRODUCTS.

For the best acre of Cotton, 1,282 lbs., Archibald Staton,	$5 00
For best acre of Corn, 44 bsh., P. P. Clements,	5 00

ON CATTLE.

For the best Bull, Thomas Jones,	4 00
" " " Yearling, do.	1 00
" " " Yoke of Oxen, W. R. W. Sherrod,	3 00
For the best Calf, M. R. Smith,	1 00

HORSES MULES AND JACKS.

For the best Colt, A. Staton,	3 00
" " " Mule Colt, L. T. Price,	2 00
" " " Jack, J. J. Williams,	4 00

HOGS AND SHEEP.

For the best Ram for fleece, Thomas Jones,	2 00
For the best Hog for killing, W. R. Sherrod,	2 50
For the best Boar, J. Cooper,	2 00
" " " Shote, do.	1 00

DOMESTIC MANUFACTURES.

For the best Homespun Cloth, not less than five yards, Mrs. B. C. Mayo,	2 50
For the best Bed Quilt, Mrs. W. K. A. Williams,	1 00
For the best Specimen of Needle Work, Miss P. E. Price,	2 50
For the best Pair of Woolen Socks, Mrs. Dr. Benjamin,	1 00

AGRICULTURAL IMPLEMENTS.

For the best Grain Cradle, M. G. Whitehurst,	5 00

ESSAY.

For the best Essay upon Agriculture—the premium was awarded to Dr. S. C. Benjamin,	5 00

Diplomas were awarded to the second best specimens of the above articles. The gentlemen offering for the premiums upon Cotton and Corn accompanied their applications with detailed statements of their mode of cultivation, &c., and it is proper to state that the Society restricted the competitors for those premiums to lands that would produce but three barrels of Corn per acre. A premium was offered for Potatoes, but no one claimed it. It is with pleasure that the Society announces the entire success of the exhibition as manifested by a very numerous attendance of our own citizens and from the adjoining counties. A large number of specimens of different branches of industry were exhibited, more than realizing the most sanguine expectations of the Society, and affording a reasonable hope that with more means, greater experience and enlarged grounds, our next exhibition will excite a deeper interest, and exert a more lasting and beneficial influence upon the Agriculture of our county.—*Standard.*

HOW TO TREAT PEACH TREES.

Now is the time to "shorten in" your peach, apricot, and nectarine trees, both for the sake of the fruit they will bear this season and the health and good condition of the trees. I suppose everybody understands the difference between shortening in and common pruning. If not, I must make a long story short by saying, that shortening in, is nothing more than cutting off the *ends* of the last year's shoots.

Suppose, for instance, the case of a young peach tree just coming into bearing. The growth of last year consists of shoots, all over the outside of the head, or top of the tree, each shoot from ten to twenty inches long. Well, in the case of such a tree, I should shorten-in every shoot one-half, that is, I would cut off five inches of the end if the shoot is ten inches long, or ten inches if it is twice that length. If the tree has made but a moderate growth, then I would take off only a third; or the same if there is but a scanty store of blossom-buds.—But if the tree is strong and healthy, and shows an abundance of blossom-buds, then half the length of the last year's shoot is not too much.* The fruit will be larger, you will have as many bushels, and the flavor will be much richer; and what is of great consequence, the constitution of the tree will not be impaired by over-bearing.

In the case of large or old peach trees—especially if they have been neglected, or badly pruned—something must be done that will bring them within bounds again, and restore to good condition. This, as I have satisfied myself, may be done by "heading in," which is nothing else than cutting back the ends of the principal limbs—say from two to four feet—in order to make the tree throw out a new head of young, healthy bearing wood. Of course, this proceeding loses you the crop for this year; so, that if that is important, you must take *one side* of the tree this year, leaving the other side to bear, and next year head-in the other side. In this way I have restored old apricot and peach trees that were "given up by the doctors" as superannuated and worn out in the service, to a pretty respectable condition of youth again; good, at least, for half a dozen years more.

It is the fashion now-a-days, when the chemists and doctors wish to know what is to be done to help a plant or tree, to *examine its ashes.* It is, in truth, not a bad plan, and is evidently founded on the old doctrine that the new grows out of the old: "ashes to ashes, and dust to dust." Exactly what the elements of the peach tree ash are I don't know, for I have not been able to find any analysis; but I conclude they are pretty largely lime and potash, for I have found by repeated trials that "wood ashes," is the very substance, (along with sufficient manure in the soil, mind,) to maintain a healthy, substantial and productive habit in a peach tree.

Don't be so foolish, (as many persons are, when they are going to give an extraordinary relish of new-fangled manure to a plant,) don't be so foolish as to content yourself with sprinkling four or five handsful of ashes around a peach tree and expect its leaves to turn color with a lease of new life. Take half a peck of "leached" ashes to a young tree, or half a bushel to a full grown tree—in that proportion at least; put not a dust of it around the trunk, (that is, so far as benefitting the roots go,) but make a calculation with your eye of how far the roots of the tree spread; it may be two feet, it may be six feet every way from the trunk. Then, having satisfied yourself about where the greater part of the "young fibers" are, spread the ashes on the surface of the ground, over them and turn it under about three inches with the three-pronged spud, or light spade. If such treatment as this don't give you healthy trees, then your stock is radically diseased, and only worth a place on the wood-pile.

That little enemy, the peach-worm, will very likely have established himself in your trees; he is already there to a dead certainty if you are not wide awake to his sapping and mining habits. If, therefore, you have not been over your trees last fall, and got the upper hand of him for the next six months, altogether the best way of doing business with this gentleman is to Lynch him on the spot, by ferreting him out of his hole, just below the surface of the gound. You can do this *good* turn for a peach tree in five minutes, by lifting the soil around it two or three inches deep, laying bare the stem just between wind and water, as the old sailors say.—If all looks clean and smooth there, very well; replace the soil again If, on the other hand, you see "gum," then look out for the enemy. Scratch a moment with your knife where it oozes out, and you will get on his trail: cut into the bark till you find him—in the shape of a white grub three-quarters of an inch long—and when found, "made no note of it," but settle his accounts as rapidly as you can.

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* I mean, of all the strongest shoots. The weak ones may be left two-thirds their whole length.

This grub comes from an egg laid in the bark in summer, by the winged insect. Unless the creature is wonderfully abundant, it contents itself with looking about for the tender bark at the surface of the ground. On this account it is a good plan to outwit the rascal by heaping up a little cone or pile of wood ashes, tan or sand, say six inches high, around the trunk. The sole object of this is to guard the soft place in the bark at the neck of the tree. On this account you must clear away the pile every fall, so as to let the bark harden again. If you do not, but keep it there winter and summer, you will find that it does no more good than blowing against the wind—for the very plain reason that the bark becomes tender at the top of the pile, instead of the surface of the ground, as before.

Some years ago, a good deal was said in favor of pouring boiling water about the neck* of peach trees. It was said to kill the worms and do no harm to the tree. I am no advocate for this practice. I do not consider it, by any means, so thorough a means of ridding the tree of worms as "war to the knife" is, but still, it will in most cases, do the job for them most effectually; and many a tree that stands near the kitchen door, may be protected in this way by she who holds the kettle for a weapon, as well as by the "regular army" of practical gardeners.

Besides this, I have satisfied myself, by experiment, (though I am sorry I have not yet had time to get up the *theory*,) that a good dose of hot water is a means of bringing to many a peach tree just about giving up the ghost. It seems to rouse the vital powers; and if there is life enough left, a good scalding at the neck seems to produce a re-action that is at times quite wonderful.

Three years ago I had two trees, a peach and a favorite apricot that had been failing for a couple of seasons—often thought before that very serviceable trees. They had been rather badly treated by the worm, to be sure, but that had been attended to in time, and the roots appeared to be in very fair condition. Still, the trees dwindled, looked sickly, and bore little or no fruit. As a desperate remedy, I resolved on a trial of hot water. I removed the soil directly round the neck of the tree, making a basin three inches deep and twenty inches across.—In this I poured twelve gallons of boiling water.

To my great satisfaction the trees, instead of dying, immediately pushed out vigorous shoots, took a healthy appearance, and made a fine growth of wood, and have since borne two crops of delicious fruit. I experimented last year, again, with equal success, and now am ready, like old Doctor Sangrado, to prescribe *hot water* in all desperate cases.—*Selected.*

MANGOLD WURTZEL—STORING, PRESERVATION, &c.

The increased use of this root, and its value for stock, renders all information relative to its preservation desirable. All the necessary information relative to its value, mode of culture, etc., may be found in vol. ii., pp. 56, 86, 187, and in sundry articles in vols. iii., iv. and v.—[Ed.

The period of storing or graving.—The month of November is the latest period to which the storing of the "Mangold Wurtzel" should be de-

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* I mean by the neck the bottom of the trunk, just at the surface of the ground, where the roots start out.

deferred; but it is notwithstanding the most advantageous time for so doing, taking all circumstances under consideration. In the month of October, (particularly in a season like the present) very few crops attain their full maturity—their most productive and fullest growth; and as the month of November is the proper season for securing this crop, it ought to be left till that period arrives, unless it shows unmistakable signs of ripeness. This is evidenced by the falling off of the leaves, or the majority of them having turned to a bright yellow or orange color—these are the principal signs of fitness for storing. I should as soon think of storing potatoes or apples before attaining their full growth or ripeness as mangold wurtzel: in neither case can they be expected to keep well during the winter; they will undergo considerable fermentation, and most probably great loss will be the result, which a timely caution and patience will prevent. If the weather in the month of November should continue fine and open, the crop will still slowly progress, and the best judgment of the farmer is then requisite to decide his course. The chances are that his crop may be injured by severe frost, or by storing too early, or whilst the juice or sap is in full activity. A slight frost under cover of a good leafage, will not do much harm; and even the injury likely to be sustained from a severe one, may be in a a great measure obviated by allowing the crop to stand sufficiently long to allow the sap or juices to flow again throughout the root; but as soon as this is attained, the sooner it is secured the better. The farmer will often have to choose between an unripe crop and an uncertain season, and he must act in such case upon the dictates of his best judgment. I think the balance is generally in favor of storing an unripe crop, because the covering applied to the roots or graves may in a great measure be regulated so as to give sufficient ventillation and yet secure them against any ordinary frost. By all means choose dry weather if possible.

The mode of taking up.—This will mainly depend upon the method pursued in putting up the crop. If the crop is planted in rows, it is more readily accomplishad than upon any other plan; and if upon the ridge system, all the better. It is a very common practice to depasture the tops by feeding them off with aged or toothless ewes: the course is good in many cases, but it involves the stocking of them too early, and thus diminishes the bulk or weight of crop. Another practice is to strip off the tops, and lead them on to other lands, to be there eaten by cattle, sheep and pigs; this is good—perhaps the best and most profitable course to adopt for their consumption, and in this case it is not necessary to commence before the crop is ready for storing, when the whole process may go on simultaneously, taking care to select a sufficient number of stock to consume them before their decay. Another practice is to pluck off the leaves and drop them where they grow, and subsequently plow them in as a green manure. This also is a good practice, and which no farmer need hesitate to adopt, providing he does not require them for food. I would, however, as respects the tops, observe in fine that they must be striped off, and cleanly taken from the root by hand or otherwise, and without cutting or in any way injuring the root, so as to cause it to "bleed," and thus render it very liable to ferment in grave, and rot.

Having disposed (I trust advantageously) of the leaves, I will now point out my own practice in taking up this crop. With Ransom's universal ridge plow, adjusted as a skeleton-plow, we plow up the rows, or rather pass the skeleton share under the rows, just taking off the tap-root, and leaving the root itself standing precisely as it grew. The carts pass down between the ridges, and the roots are thrown in by hand from either side, taking about eleven or twelve rows each time: they are led to a convenient place, and packed or graved in lengths; the bottom of the grave is from seven to eight feet wide, narrowed off on both sides till they meet at the top, and at the height of about five feet, or occasionally six feet, acording to the condition of the roots; the drier and cleaner the roots, the larger we venture to make our graves. As night approaches they are carefully thatched down with straw or stubble, and in this state they are left till the season gives evidence of approaching frost, when they are well earthed up from trenches cut on either side to within one foot of the top, and finished by as thick a covering of stubble as can be made to lay on with safety; this straw covering, if well done gives space for ventilation, while it prevents injury from frost, however inclement. Neither fork nor spade is used in taking up, and every crushed or injured root is thrown aside for immediate consumption: it is the height of folly to have or employ the fork in filling the carts; every punctured or otherwise injured root is almost certain to rot in the grave.

I adopted the above course after long and mature consideration, believing it to be the best mode of storing roots; it is not either new or novel, but is more generally followed than any other mode; and as this no doubt is the result of long tried experience, I hesitate not to give it my best recommendation.

Another mode of storing is to place hurdles in double parallel rows, about eight feet and two feet apart, and fill up the smaller space with straw, stubble, sedge, fern or other similar material; the carts are backed into the larger space, and the roots are deposited therein, and subsequently covered over with the *like strawy* substances. This is practiced in districts possessing but little depth of soil, or where plenty of sedge, fern, &c., is near at hand. Another method is to place them in graves similar to the first named, and simply cover them with mould or soil; this keeps them in better condition than in any other way, providing they are got up clean and dry and the earth used is mild and easily broken, so as to fill up the interstices between the roots; the danger is in preventing a sufficient ventilation, and the top in this case must be left open during fine weather, before finally earthing up. Another mode is to cover this kind of graves with haulm or straw only; this is a very safe practice; but when much is grown, it takes a large quantity, as it is requisite that the covering be at least three feet in thickness, and be well trodden down; otherwise the frost in winter and the dry winds in the spring will injure the roots. This appears to me to be the mode which will best preserve its most valuable constituents; the proportion of sugar is increased in the root if it can be kept quite free from fermentation on the one hand, or drying too rapidly on the other. Many other plans are adopted, such as providing large store-houses or hovels, and the like, purposely for storing roots; (this is a good practice providing sufficient ventillation is secured—the casting in the roots is tedious and expensive;) throwing the roots into heaps on the land where grown, and partially covering them, either by leaves for immediate safety prior to removal, or by earth for more permanent security.

I would observe in conclusion, and I beg to call especial attention to the remark that on the return of mild weather, every heap, under whatever covering, will commence growing; and consequently, if sufficient air ventilation is not immediately given, fermentation will take place, and destruction from rot will be the certain result.

Farmer's Magazine.] P. F.

Turning Sheep to Grass.—In many instances, sheep may be turned to pasture, almost as soon as the snow is gone. If there is grass of the previous year's growth, the sheep will derive more benefit from eating it, provided the ground is not too wet. The sheep should, however, be regularly provided with what hay they want, otherwise they may fail to obtain a proper support.—Portable racks, or feeding boxes may be placed in some sheltered part of the pasture, and the hay supplied morning and evening, until the grass is sufficiently grown to render it no longer necessary.

To Fatten Fowls.—Fowls may be fattened in four or five days by the following process:—

Set some rice over the fire with skimmed milk, as much only as will serve one day. Let it boil till the rice is swelled out; add a teaspoonful of sugar. Feed the fowls four or five times a day in pans, and give them as much each time as will fill them. Great care must be taken that they have nothing sour given them, as that prevents their fattening. Give them clean water or milk from the rice to drink. By this method the flesh will have a clear whiteness.—*Southern Cult.*

Grease for Carriage Wheels.—The composition prevents friction to a great extent. Its cost is not comparatively greater than the materials often employed for the purpose; it is not changed by heat, and hence does not liquify and flow away from its proper place:

Black lead pulverized,	50	parts by	weight.
Hog's Lard,	50	"	"
White Soap,	50	"	"
Quicksilver,	5	"	"

Amalgamate well the lard and mercury by rubbing them together for a long time in a mortar; then gradually add the black lead, and lastly the soap, mixing the whole as perfectly as possible.

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Feeding Poultry.—Professor Gregory, of Aberdeen, in a letter to a friend, observes:—"As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells or chalk, which they eat greedily. they will lay twice or thrice as many eggs as before. A well-fed fowl is disposed to lay a large number of eggs, but cannot do so without the materials of the shells however nourishing in other respects her food may be; indeed, a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat on the walls, would lay no eggs at all with the best will in the world."

◆

Dr. M'Lane's Vermifuge.—During a practice of more than twenty years. Dr. McLane had attended innumerable patients afflicted with every form of worm disease, and was induced to apply all the energies of his mind to the discovery of a vermifuge, or worm destroyer, certain in its effects; the result of his labors is the American Worm Specific, now before the public, which is perfectly safe, and may be given alike to children of the most tender age, or to the aged adult: it purges mildly and subdues fever, and destroys worms with invariable success. It is is easy of administration, and as it does not contain mercury in any form whatever. no restrictions are necessary with regard to drinking cold water, nor is it capable of doing the least injury to the tenderest infant. An incredible number of worms have been expelled by this great vermifuge.

Sold by P. F. PESCUD, Raleigh.

The Great Restorative.—*Fever and Ague Cured by Dr. M'Lane's Liver Pills.*—Mr. Jonathan Hongham, of West Union, Park County Illinois, writes to the proprietors that he had suffered greatly from a severe and protracted attack of Fever and Ague, and was completely restored to health by the use of the Liver Pills alone. These Pills unquestionably possess great tonic properties, and can be taken with decided advantage for many diseases requiring invigorating remedies; but the Liver Pills stand pre-eminent as a means of restoring a disorganized Liver to healthy action; hence the great celebrity they have attained. The numerous formidable diseases arising from a diseased Liver, which so long baffled the skill of the most eminent physicians of the United States, are now rendered easy of cure, thanks to the study and perseverence of the distinguished physician whose name this great medicine bears—a name which will descend to posterity as one deserving of gratitude. This invaluable medicine should always be kept within reach; and on the appearance of the earliest symptoms of diseased Liver, it can be safely and usefully administered.

Purchasers will please be careful to ask for Dr. McLane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

For Sale by P. F. PESCUD.

NEW COTTON GIN!!!

Superior to any now in use.

The inventor of the new Cotton Gin, known as "S. R. Parkhurst's Patent Cylinder Gin," after having spent three years, and a vast amount of money has succeeded in perfecting the Gin, so that it can now be offered to the public, with full confidence in its superiority over every machine for cleaning cotton from the seed.

The great value of this machine consists in this; that it leaves the cotton open and free, does not cut or break the staple, but rolls it off the seed in its natural state *making* the lint with from *one to two cents per pound* more for the manufacturer, *by actually bringing* that advance in market The machine will not saw or cut the hand of the operator, and will not catch a stalk, stone, nail, or any hard substance, but throw them out with the seed. The company who own the right for making and selling this Gin for the State of North Carolina, are now manufacturing a large number and are prepared to fill all orders, giving a full guarantee the Gin *will do good service, both in quantity* and quality.

The Gins will be delivered at the Depot nearest the purchaser, and will be set up between this and the next ginning season, *to be paid for when tested, provided they give satisfaction.*

Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

C. LUTTERLOH,
NURSERYMAN AND FLORIST,
Fayetteville, N. C.

HAS Just received a large lot of Hardy Evergreens, Ornamental Trees, Roses, Shrubs, Raspberries, Strawberries, Bulbs, Grapevines, Green-house plants, Fruit Trees, &c.

Persons desirous of ornamenting their grounds and gardens, will find his stock very select.

The Chili Pine, Cryptomeria, Deodar Cedar, Cedar of Lebanon, &c., standing at the head of the Evergreens.—The celebrated Giant of the Battles, Cloth of Gold, &c., among the Catalogue of Roses, will be supplied to applicants.

Orders will receive prompt attention.

P. S.—Plants can be sent to Wilmington by Steamboat for persons near all the Railroads.

Febuary, 1854. 10—tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance; six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the followingrates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

For analysis of soils, $5 00
Writing out analysis, 5 00

JOHN F. TOMPKINS, M. D.

A CARD.

JAMES M. TOWLES, General Agent for the sale of Agricultural Implements, and Farming Utensils, &c.

N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

WM. ALLSTON GOURDIN,
Factor and Commission Merchant,
NO. 73 EAST-BAY,
CHARLESTON, S. C.,

IS prepared to make liberal advances on Consignments of Rice, Cotton, Corn, Sugar, Flour, Grain, Hay, &c. Agent for "Genuine Peruvian Guano" for the States of South Carolina, North Carolina, Georgia, Alabama and Tennessee. Also, Agent for Baltimore and Southern Packet Co.'s Steam-ships.

November, 1853. 8---

WM. H. TAPPEY. | WM. C. LUMSDEN.

TAPPEY & LUMSDEN,
Iron and Brass Founders and Machinists,
Opposite Jarratt's Tavern and Southern Railroad Depot,
PETERSBURG, VA.
(*Cash paid for old Copper and Brass.*)

RAILROAD CARS, Axles, Wheels Self-Oiling Boxes, &c.; Tobacco Presses, Mills, Cotton Ploughs, and Knives; Cast and Wrought Railing; Steam Engines, Vertical and Circular Saw Mills, Grist Mill Irons of every description, Shafting and all kinds of Machinery, Wagon Boxes, Bells, &c., &c.

November, 1853. 8---

DeBURG'S No. 1.
SUPER PHOSPHATE OF LIME.

THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity, from one Bag to any number of Tons. Price, when one ton and over, is taken, $45,00 per 2,000, lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

BORUM & FISHER,
Sole Agents,
Norfolk, Va.

SAMUEL R. BORUM. HENRY W. FISHER.

FARMER'S HEAD QUARTERS.

BORUM & FISHER, DEALERS IN BAR AND Bundle Iron of every description, for Farming and Manufacturing purposes. Horse Shoes, Nail Rods, Cut and Wrought Nails and Spikes, &c. Manufacturers of Agricultural Implements and Farming Tools generally, Horse Powers, Threshing Machines, Bamborough's and other celebrated Wheat and Corn Fans, always on hand. Also, Fresh Garden and Field Seeds. Our Catalogue and Almanac is published the first of each year, and may be had gratis, at our New Agricultural and Iron Depot and Seed Store, 11, Water Street, Norfolk, Va.

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W H Jones

VOL. 3. RALEIGH, N. C., JUNE, 1854. NO. 3.

JOHN F. TOMPKINS, M. D., Editor. **Wm. D. COOKE & Co., Proprietors.**

STATE FAIR, 1854.

NORTH CAROLINA STATE AGRICULTURAL SOCIETY.

The Second Annual Fair of this Society will be held at Raleigh, on Tuesday, Wednesday, Thursday and Friday, 17th, 18th, 19th and 20th of October, 1854.

REGULATIONS:

Members of this society, and all who may become such at the time of the exhibition, by the payment of $3 to the Treasurer, will be furnished with a badge of membership, which will admit the member and the ladies of his family, and the children under 15 years old, to the grounds during the hours of public exhibition.

All contributions to Floral Hall will be cheerfully received free of charge.

Exhibitors who contend for premiums, are expected to become members of the State Agricultural Society, and must have their animals or articles properly entered at the office, on or before 10 o'clock, Tuesday, the 17th October: so that catalogues of the articles exhibited may be properly arranged and published before the grounds are opened for public exhibition.

All animals or articles admitted within the grounds for exhibition must be labeled with the name and residence of the owners.

No animal, implement or other article, for which a premium is offered will be entitled to said premium, though being the best or second best of the kind offered, unless such article shall be deemed by the judges, of sufficient merit to deserve such reward.

No one subject shall receive two premiums by the awards of different committees of judges at the same fair, unless when one is offered expressly as an additional premium.

The decisions of the judges of awards will be regarded as final, in every exercise of their legitimate authority. But any awards made, contrary to the rules, for directing and restricting premiums, claimants or awards, will be disregarded or reversed by the Executive Committee.

All reports of the judges to be valid, must be delivered to the Ex. Committee for examination, by the afternoon preceding the day for announcing the awards of premiums.

Premiums awarded, but not claimed within three months thereafter, will be regarded as donations to the society.

Stock brought to the Fair for sale, will have an enclosed lot adjoining the Fair Grounds assigned them, with water convenient, where they can be kept at the expense of the owner.

Articles manufactured in the State, when brought in competition with foreign articles, will take precedence, other things being equal, and the foreign article will rank as second in the list of premiums.

The Chief Marshall, with efficient aids, will be in attendance during the hours of exhibition to keep proper order.

A fine band of music will be in attendance each day during the hours of exhibition.

An efficient police will take charge of the grounds during the night.

Admission fee—for a carriage $1; for a buggy 50 cents; for a single person 25 cents—children and servants half price.

PROGRAMME.

Tuesday, Oct. 17.—The Fair will open at ten o'clock for the admission of visitors.

Wednesday, 18th.—The Judges will make their examinations. Trial of Machinery.

Thursday, 19th.—The Address delivered.—Plowing match, and trial of double harness horses.

Friday, 20th.—Reading reports of Judges; trotting races with single harness, horses in buggies or sulkeys; and parade of prize animals, with appropriate badges, around the track, immediately preceeding their exit from the grounds.

The gates will be closed every evening at 4 o'clock, to give time for making the necessary arrangements for the night.

BRANCH I.

LIVE STOCK.

FIRST DIVISION.

HORSES.

First Class.—*Thoroughbred.*

1st. For the best stallion over 4 years old, $10
2d. For the 2d best “ “ “ 5
3rd. For the best broodmare, 10
4th. For the 2d best “ 5
5th. For the best stallion under 4 years old 5
6th. For the best filly “ “ 5

In this class purity of blood being the highest point of distinction, a well authenticated pedigree must, in every case, accompany each animal put on exhibition to compete for any of the above prizes.

Second Class.—*Quick draught and Saddle Horses.*

1st. For the best stallion over 4 years old $10
2d. For the 2d best “ “ “ 5
3rd. For the best broodmare, 10
4th. For the 2d best broodmare, $5
5th. For the best stallion under 4 years old, 5
6th. For the best filly. 5
7th. For the best saddle-horse, mare or gelding, 5
8th. For the 2d best “ “ “ dip.
9th. For the best pair of matched carriage horses, 10
10th. For the 2d best pair “ “ 5
11th. For the best single harness horse, 5
12th. For the 2d best “ “ dip.

In this class individual excellence in form, action and disposition, will be regarded as chief points of merit.

Third Class.—*Heavy Draught Horses.*

1st. For the best stallion over 4 years old $10
2d. For the 2nd best “ “ “ 5
3rd. For the best broodmare, 10
4th. For the 2d best “ 5
5th. For the best stallion under 4 y's old, 5
6th. For the best filly, “ “ “ 5
7th. For the best team of not less than 4, 10
8th. For the best pair, 5

In this class, form, size and docility, will be regarded as chief excellencies.

Fourth Class—*Jacks, Jennets and Mules.*

1st. For the best jack over 6 years old, $10
2d. For the 2d best “ “ 5
3rd. For the best jennet, 10
4th. For the 2d best “ 5
5th. For the best jack under 6 years old, 5
6th. For the best jennet “ “ 5
7th. For the best mule, 5
8th. For the best pair of mules, 10
9th. For the best team of not less than 4 mules, 10

SECOND DIVISION.

CATTLE.

First Class.—*Short Horns or Durhams.*

1st. For the best bull over 4 years old, $10
2d. For the 2nd best “ “ “ 5
3rd. For the best cow over 4 years old, 10
4th. For the 2nd best cow “ 4 “ 5

Between one and four years old.

1st. For the best bull under 4 and over 1, 5
2d. For the 2d best “ 4 “ 1, dip.
3rd. For the best heifer “ 4 “ 1, 5
4th. For the 2d best “ “ 4 “ 1, dip.

Under one year old.

1st. For the best bull calf, $5
2d. For the 2nd best bull calf, dip.
3rd. For the best heifer, 5
4th. For the 2nd best heifer, dip.

The same classification will be adopted, and the same premiums offered for Ayrshires, Alderneys, Devons, Holsteins, Herefords or any other variety of pure blood, as in the case of the above; also, for grades and native stocks.

SECOND CLASS.—*Working Oxen.*

1st. For the best yoke over six years old, $10
2d. For the 2d best " " " 5
3rd. For the best yoke under 6 " 5
4th. For the 2d best yoke under 6 years old, dip
5th. For the best driver or manager of oxen, 5
6th. For the 2nd best driver or manager of oxen, dip.

In judging this class, especial reference will be had, to *form*, *size* and *docility*, and no attention will be paid to degree of fatness, farther than susceptibility to that condition.

THIRD CLASS.—*Fat Cattle.*

1st. For the best pair of fat oxen, $10
2d. For the 2d best pair of fat oxen, 5
3th. For the best fat single ox or cow 5
4th. For the 2d best fat " " " dip.

In this class fitness for the shambles will be regarded as the chief excellence.

FOURTH CLASS.—*Milch Cows.*

1st. For the best milch Cow, $10
2nd. For the 2nd best " " 5
3rd. For the 3rd best " " dip.

In this class, quantity and quality of milk will be the object of attention, without regard to the breed of the cow. The Judges will require in writing, with each cow put on exhibition, a statement of the quantity of milk and butter yielded in any one week. The week for making the test, to be selected by the owner any time during the season.

THIRD DIVISION.

SHEEP.

FIRST CLASS.—*Fine and Medium Wools.*

1st. For the best buck, fine wool, $10
2d. For the 2nd best " " 5
3rd. For the best pen of ewes, not less than 3, fine wool, $5
4th. For the 2nd best, " " " " Dip.
5th. For the best pen of lambs, not less than 4, Dip.
6th. For the best buck, middle wool, Dip.
7th. For the best pen of ewes, not less than 3, middle wool, Dip.
8th. For the best pen of lambs, not less than 4, Dip.

SECOND CLASS.—*Natives or Mixed blood.*

1st. For the best buck, $ 5
2d. For the 2nd best buck, Dip.
3rd. For the best pen of ewes, not less than 4, 5
4th. For the 2nd best, " " " " Dip.
5th. For the best pen of lambs, not less than 4. 5
6th. For the 2d best, " " " " Dip.
7th. For a pair of Cashmere goats, 10

FOURTH DIVISION.

SWINE.

FIRST CLASS.—*Large Breed.*

1st. For the best boar over 2 years old, $ 5
2d. For the 2nd best, " " " Dip.
3rd. For the best breeding sow over 2 years old, 5
4th. For the 2nd best, " " " Dip.
5th. For the best boar under 2 years old, 5
6th. For the 2nd best, " " " Dip.
7th. For the best open sow, 5
8th. For the 2nd best " Dip.
9th. For the best lot of 4 pigs, under 6 months old, 5
10th. For the 2nd best, " " " " Dip.

This class includes Berkshires, Chester, Woburn, Grazier, Pennsylvania White Pig, Bedford, Duchess County, and their grades, size, form and fitness as pork hogs, will be the chief object of attraction in this class.

SECOND CLASS.—*Small Breed.*

1st. For the best boar over 2 years old $ 5
2d. For the 2nd best, " " " Dip.
3rd. For the best breeding sow over 2 years old, 5
4th. For the 2nd best, " " " Dip.
5th. For the best boar under 2 years old, 5
6th. For the 2nd best, " " " Dip.

7th. For the best open sow, $5

8th. For the 2nd best, " Dip.

9th. For the best lot of pigs under 6 ms. old, 5

10th. For the 2nd best, " " " Dip.

In this class is included Suffolk, Neapolitan, Chinese, Guinea, Snap Dragon, and their grades, and will be regarded chiefly for their fattening qualities.

THIRD CLASS.—*Natives.*

1st. For the best boar over 2 years old $ 5

2d. For the 2nd best, " " " Dip.

3rd. For the best breeding sow, 5

4th. For the 2nd best, " " Dip.

5th. For the best boar under 2 years old, 5

6th. For the 2nd best, " " " Dip.

7th. For the best open sow, " " 5

8th. For the 2nd best, " " Dip.

9th. For the best lot of pigs under 6 months old 5

10th. For the 2nd best, " " " Dip.

11th. For the best lot of 10 hogs, of any breed, 10

12th. For the 2nd best, " " " 5

PREMIUM ANIMALS.

1st. For the the best stallion over 4 years old, of any breed, on exhibition, $10

2d. For the 2nd best, " " " 5

3rd. For the best brood mare, over four years old, of any breed, on exhibition, 10

4th. For the 2nd best, " " " 5

5th. For the best stallion under 4 and over 1 year old, 5

6th. For the best filley, " " " 5

7th. For the best colt under 1 year old, 5

8th. For the 2nd best, " " " Dip.

9th. For the best bull of any breed, on ex. 5

10th. For the 2nd best, " " " Dip.

11th. For the best cow, 5

12th. For the 2nd best, " Dip.

13th. For the best buck, 5

14th. For the 2nd best, " Dip.

15th. For the best lot of 3 ewes. 5

16th. For the 2nd best, " Dip.

17th. For the best boar, 5

18th. For the 2nd best, " Dip.

19th. For the best breeding sow, 5

20th. For the 2nd best, " Dip.

In this class is included only those animals which have taken premiums in their respective classes; here they are all brought in competition upon individual merit, without regard to blood or stock.

FIFTH DIVISION.

POULTRY.

FIRST CLASS.—*Chickens in lots of three, one cock and two hens.*

1st. For the best lot of Shangha's $3

2nd. For the 2d best lot of " Farm. Jour.

3rd. For the best lot of Dorkings, " "

4th. For the 2nd best lot of " " "

5th. For the best lot of Polands, " "

6th. For the 2nd best " " " "

7th. For the best lot Brahma Pootras, " "

8th. For the 2d best lot of " " " "

9th. For the best lot of Great Malays, " "

10th. For the 2d best lot of " " "

11th. For the best lot of Jersey Blues, " "

12th. For the 2d best lot of " " " "

13th. For the best lot of Game Fowls, " "

14th. For the 2d best lot of " " " "

15th. For the best lot of Bantams, " "

16th. For the 2d best lot of " " "

The same classification adopted, and the same premiums offered for any other variety of pure blood, which may be exhibited.

SECOND CLASS.—*Turkeys, Geese, Ducks, &c.*

1st. For the best pair of turkeys, cock and hen, $3

2d. For the 2d best pair of turkeys, cock and hen, Farm. Jour.

3rd. For the best pair, or single, wild turkey, domesticated, " "

4th. For the 2d best pair, or single, wild turkey, domesticated, " "

5th. For the best pair of geese, male and female, " "

6th. For the 2d best pair of geese, male and female, " "

7th. For the best pair of wild geese, male and female, " "

8th. For the 2nd best pair of wild geese, male and female " "

9th. For the best pair of Poland ducks drake and duck, $3

10th. For the 2nd best pair of Poland

ducks, drake and duck, Farm. Jour.

11th. For the best pair of Muscovy ducks, drake and duck, " "

12th. For the 2d best pair of Muscovy ducks, drake and duck, " "

13th. For the largest and best variety of poultry exhibited by any one person, $5

14th. For the second best, 3

In this class, ornament, and profit will be regarded as chief points of value.

RULES FOR BRANCH FIRST.

Animals for exhibition will not be received or admitted within the Fair Grounds before Monday morning, then they must be properly entered at the office, and placed under the direction of the Ex. Com.

Animals will not be admitted after 10 o'clock, Tuesday.

No exhibitor will be permitted to enter more than one animal in each of the sub-classes.

Animals, when duly entered, are well provided for by the Society, without charge to the owner, and cannot be removed from the Grounds, except by permission of the Ex. Com.

Awards of superiority in this branch, will be given in accordance with the Schedule of premiums.

No unprofitable animal will be a proper subject to receive a premium.

No premium will be awarded for any animal not deemed worthy, by the judges, though it should be the best of the kind exhibited.

BRANCH II.

AGRICULTURE.

FIRST CLASS—*Farming.*

For the six best farms in the State, those which have been managed to the greatest benefit and profit, in reference to the following objects: the improvement of soil, increased production, increase of farming capital, annual profits, &c., &c., together with the general management of the entire farm, in all its details, tending to secure profitable, and lasting results, Silver cup

For the six 2nd best farms, &c., $5

The above must be submitted in writing, giving a concise description of the farm, location, character of soil, manner of preparing land for cultivation, by draining, irrigating, manuring, plowing, &c., &c., planting, cultivating, gathering, &c., &c., productions, yield, &c., &c., so attested or otherwise authenticated, as to satisfy the judges of the correctness of the statements made.

For the best product, averaged to the acre, of each of the following crops, raised in 1854, on a *bona fide* farm, and for an entire shift of the farm according to its usual or designed rotation.

1st. For the best average product of Indian Corn, $20

2d. For the best average product of Wheat, 20

3rd. For the best average product of Oats, 5

4th. For the best average product of Rye, 5

5th. For the best average product of Tobacco, 20

6th. For the best average product of Cotton, 20

7th. For the best average product of Clover, 5

For the best average product of each of the following crops, a *Diploma*: The Common Cornfield Pea, Beans, Sweet Potatoes, Irish Potatoes, Sugar Beets, Turnips, Carrots, Parsnips, Pumpkins and Oregon Pea.

For the largest yield on a single acre of each of the following crops, $10: Indian Corn, (not less than 100 bushels to the acre,) Wheat, (not less than 30 bushels to the acre,) Hay, Clover or Grass, (not less than two tons per acre,) Tobacco and Cotton.

SECOND CLASS.—*Agricultural Productions.*

For the best specimen of each of the following products $2: Indian Corn, Wheat, Oats, Rye, Barley, Beans, Peas, Rice, of each, one peck; Tobacco in leaf, Cotton in seed, of each, ten pounds; Clover and Grass Seed, half-gallon; Beets, Turnips, Parsnips, Carrots, of each, half dozen; Pumpkins, a sample, Sweet Potatoes, and Irish Potatoes, of each, half bushel.

For the greatest variety of the above articles, $5

For the best specimen of one half gallon of Virgin dip Turpentine, dip.

For the best specimen, No. 1, Rosin,	dip.
For “ “ Hemp, 10 lbs,	dip.
For “ “ Flax, “	dip.

BRANCH III.

MECHANICS.

FIRST CLASS.—*Ploughs, Cultivators, &c.*

1st. For the best double plough,	$ 5
2d. For the 2nd best, “ “	dip.
3d. For the best single plough,	5
4th. For the 2nd best “	dip.
5th. For the best cultivator,	5
6th. For the 2nd best “	dip.
7th. For the best harrow, 1 or 2 horse,	5
8th. For the 2nd best “ “	dip.
9th. For the best subsoil plough,	5
10th. For the best gauge, “	5
11th. For the best hill-side, “	5
12th. For the best horse rake,	dip.
13th. For the best roller, smooth,	5
14th. For the best “ pegged,	5
15th. For the best grain cradle,	5
16th. For the 2nd best “	dip.

SECOND CLASS.—*Farm Vehicles, &c.*

1st. For the best 4 or 6 horse wagon,	$15
2d. For the 2nd best, “ “	dip.
3d. For the best 2 horse wagon,	10
4th. For the 2nd best “	dip.
5th. For the best 1 horse wagon,	5
6th. For the 2nd best “ “	dip.
7th. For the best horse cart, (tumble,)	5
8th. For the 2nd best, “	dip.
9th. For the best ox cart and yoke,	5
10th. For the 2nd best, “ “	dip.
11th. For the best wheel barrow,	2 50
12th. For the 2nd best, “	dip.
13th. For the best dumping wagon,	5
14th. For the 2nd best, “ “	dip.
15th. For the best pair wagon or plow hames,	2 50
16th. For the best cart saddle,	2 50
17th. For the best pair cart wheels,	2 50

THIRD CLASS.—*Hand Power Machinery.*

1st. For the best corn-planter or drill,	$ 5
2d. For the best wheat “ “	5
3rd. For the best straw or shuck cutter,	5
4th. For the 2nd best “ “ “	dip.
5th. For the best corn sheller,	5
6th. For the 2nd best “	dip.
7th. For the best fanning mill,	$5
8th. For the 2nd best, “ “	dip.
9th. For the best churn by machinery,	5
10th. For the 2nd best, “ “	dip.
11th. For the best sewing machine,	5
12th. For the 2nd best “ “	dip.
13th. For the best hay press,	10
14th. For the 2nd best “ “	dip.
15th. For the best cotton, “	10
16th. For the 2nd best “ “	dip.
17th. For the best pump or hydraulic machine,	5
18th. For 2nd best, “ “	dip.
19th. For the best shingle machine,	5
20th. For the 2nd best, “ “	dip.
21st. For the best smut machine,	5
22nd. For the 2nd best, “	dip.

FOURTH CLASS.—*Horse Power Machinery for Farm.*

1st. For the best sweep horse power,	$20
2d. For the 2d best do.	dip.
3d. For the best Railway “	20
4th. For the 2d best do. “	dip.
5th. For the best Saw Mill for horse power,	10
6th. For the best Grist do. do.	10
7th. For the best Corn and Cob Crusher,	5
8th. For the best Threshing Machine,	10
9th. For the best broadcasting and drilling machine for grain or grass,	10
10th. For the best broadcasting machine for sowing lime, bone dust, &c.,	5
11th. For the best ditching machine,	5
12th. For the best cotton gin,	10
13th. For the best stump machine,	5
14th. For the best reaping machine,	20
15th. For the best mowing “ for grass	5

The above machinery to be tested in such manner and at such place as the Executive Committee shall designate.

FIFTH CLASS.—*Steam Power for Farm.*

1st. For the best portable steam engine as a substitute for horse power,	$25
2nd. For the second best do.	10
3rd. For the greatest collection of useful machines and implements made at any one factory,	20

RULES FOR BRANCH THREE.

All machines, implements, or other products of mechanical art, must be exhibited by or for their respective makers, or inventors, or improvers, or their assignees, to or for whom only premiums for such articles will be awarded.

Persons holding such articles by purchase, or as matters of traffic, will have no claim to premiums.

Every machine or implement offered for a premium, must be so designated or described as will serve to identify it to future purchasers, and also the selling price of the article must be stated and marked on the labels and in the published reports of premium articles.

Efficiency, cheapness, and durability will be regarded as chief excellencies in every machine or implement.

BRANCH IV.

MANUFACTURES.

First Class—*Pleasure Vehicles.*

1st. For the best two horse carriage,	$25
2d. For the 2d best two-horse "	10
3d. For the best Phaeton or Rockaway,	20
4th. For the 2d best " "	10
5th. For the best top buggy,	15
6th. For the 2d best "	10
7th. For the best open buggy,	10
8th. For the 2d best "	5
9th. For the best sulkey,	10
10th. For the 2d best "	5

Second Class.—*Saddlery.*

1st. For the best set of Carriage harness,	$10
2d. For the 2d best set of " "	dip.
3rd. For the best set of Buggy or Sulkey harness,	$5
4th. For the 2d best set of Buggy or Sulkey harness,	dip.
5th. For the best Gents' Saddle, Bridle and Martingales,	5
6th. For the 2nd best Gents' Saddle, Bridle and Martingales,	dip.
7th. For the best Lady's Saddle, Bridle and Martingales,	5
8th. For the 2nd best Lady's Saddle, Bridle and Martingales,	dip.
9th. For the best set of 4 horse wagon harness,	5
10th. For the 2d best set of 4 horse wagon harness,	dip.
11th. For the best set of 2 horse wagon harness,	$5
12th. For the 2d best set 2 horse wagon harness,	dip.
13th. For the best set 1 horse wagon harness,	3
14th. For the best set of cart harness,	3
15th. For the best plough harness,	3
16th. For the best halter and collar or pad,	3

Third Class.—*Sundry Manufactures.*

1st. For the best bedstead,	$5 00
2d. For the 2d best "	dip.
3rd. For the best cradle or crib for children,	2 50
4th. For the best rocking chair,	2 50
5th. For the best half dozen sitting chairs,	2 50
6th. For the best centre table,	2 50
7th. For the best wash stand,	2 50
8th. For the best pair Gents' boots,	3 00
9th. For the 2d best " "	dip.
10th. For the best pair gents' shoes,	3 00
11th. For the best half-doz. pair brogans,	3 00
12th. For the 2d " " "	dip.
13th. For the best dress hat, silk or fur,	3
14th. For the 2d " " "	dip.
15th. For the best plantation hat,	3
16th. For the 2d " " "	dip.
17th. For the best wool hat, half doz.	3
18th. For the 2d " " "	dip.
19th. For the best straw or grass hat,	2
20th. For the best lot of guns,	5
21st. For the 2d " "	dip.
22d. For the best lot of stoneware, glassware, or earthernware, each,	3
23rd. For the second best lot of stoneware, glassware or earthernware, each,	dip.
24th. For the best lot of iron castings, as pots, kettles, &c., &c.,	3
25th. For the 2d best lot iron castings, as pots, kettles, &c., &c.	dip.
26th. For the best lot of woodware, as buckets, tubs, keelers, &c., &c.,	3
27th. For the 2d best lot of woodware,	dip.
28th. For the best lot of Cooper's ware, consisting of one 60 gal. cask, one 30 do. and one keg,	3
29th. For the 2d best lot of cooper's ware,	dip.
30th. For the best lot of brooms,	3

31st. For the 2d best lot of brooms, dip.

32d. For the best lot of leather, 1 side of sole, 1 of kip, and 1 side of calf, 5

33rd. For the 2d best lot of leather, 1 side of sole, 1 of kip, and 1 of calf, dip.

34th. For the best specimen of harness leather, dip.

35th. For the best lot of baskets, oak split or willow, 3

36th. For the 2d best lot of baskets, oak split or willow, dip.

37th. For the best lot of tin ware, 3

38th. For the 2d best “ “ dip.

39th. For the best specimen of flour in barrel or half do. 5

40th. For the 2d best “ “ “ dip.

41st. For the best specimen of bacon hams, with a statement of how cured, 5

42d. For the 2d best do. dip.

43rd. For the best specimen of chewing tobacco, 5

44th. For the 2d best do. dip.

45th. For the best specimen of smoking tobacco, 3

46th. For the 2nd best do. dip.

47th. For the best lot of cigars, 5

48th. For the best lot of handsaws, screw plates, Augers, &c. 5

49th. For the best lot of edge tools, 5

50th. For the 2d best ‘, dip

51st. For the best lot of tallow candles, 3

52nd. For the 2nd best “ dip.

53rd. For the best specimen of Cassimere, five yards, 3

54th. For the 2d best, do. dip.

55th. For the best do. heavy Jeans, 10 yds. 3

56th. For the 2d do. “ “ “ dip.

57th. For the best do. Linsey, 10 yds. 3

58th. For the 2d do. “ “ dip.

59th. For the best do. Kersey for men, “ 3

60th. For the 2d do. “ “ “ dip.

61st. For the best do. Osnaburgs, “ 3

62d. For the 2d do. “ “ dip.

63rd. For the best do. shirtings, sheetings, &c. 3

64th. For the 2d do. “ “ dip.

65th. For the best do. Cotton Yarns, 3

66th. For the 2d do. “ dip.

67th. For the best do. Letter Paper, 3

68th. For the 2d do. “ dip.

69th. For the best do. of Foolscap Paper, 3

70th. For the 2d do. “ “ dip.

71st. For the best do. Book & Printing do. 3

72d. For the 2d do. “ “ “ dip.

73rd. For the best do. “ Binding, 3

74th. For the best do. Card Printing. dip.

Fourth Class—*Household Manufactures.*

1st. For the best Bed Quilt, $3

2nd. For the 2nd “ “ dip.

3rd. For the “ Counterpane, 3

4th. For the 2nd “ “ dip.

5th. For the best specimen of Embroidery, 3

6th. For the 2d best “ “ dip.

7th. For the best “ Worsted Work, 3

8th. For the 2d best “ “ dip.

9th. For the best home-made Carpet, 3

10th. For the 2d best “ “ dip.

11th For the best pair “ Blankets, 3

12th For the 2d “ “ “ dip.

13th For the best Hearth Rug, and Fire screene, 3

14th For the 2d best “ dip.

15th For the best pair fine yarn hose, 1

16th For the 2d best “ “ “ dip.

17th For the best “ home-made silk do. 3

18th For the 2d best “ “ “ dip.

19th For the best variety of sweetmeats 3

20th For the 2d best “ “ dip.

21st For the best “ pickles, 3

22nd For the 2d best “ “ dip.

23rd For the best specimen homemade soap with process for making, 3

24th. For the second best do. dip.

25th. For the best specimen of fresh butter, 5 pounds, 3

26th. For the 2d best do. dip.

27th. For the best do. salted do. 5 pounds, and more than 6 mo. old, 3

28th. For the 2d best do. dip.

29th. For the best specimen home-made cheese, 3

30th. For the 2d best do. dip.

31st. For the best specimen of honey, 10 pounds in comb, 3

32nd. For the second best do. dip.

Fifth Class—*Flowers, Fruit and Fruit Trees.*

1st. For the largest and choisest variety of flowers, $5

2d. For the 2nd best variety of flowers, dip.

3rd. For the greatest variety of roses, dip.

4th. For the " " dahlios, dip.

5th. For the best floral ornament, dip.

6th. For the greatest variety of green-house plants, dip.

7th. For the largest and best variety of apples, suitable for southern raising, each labelled, and mode of keeping, $ 5

8th. For the 2nd best " " " " dip.

9th. For the largest and best variety of pears, 5

10th. For the 2nd best " " " " dip.

11th. For the largest and best variety of fruits of different kinds, 5

12th. For the 2nd best " " " " dip.

13th. For the largest and best collection of apple trees, suitable for southern raising, 3

14th. For the 2nd best, " " " " dip.

15th. For the largest and best collection of pear trees, suitable for southern culture 3

16th. For the best do. of pearch trees, 3

17th. For the best do. of grape vines, 3

18th. For the best do. of strawberry " 1

19th. For the best do. of raspberry plants, 1

20th. For the best, do. of goosberry, " 1

21st. For the best do. asparagus roots 1

22nd. For the best specimen of domestic wines, half-dozen bottles, 3

23rd. For the 2nd best, " " " " dip.

24th. For the largest and best variety of domestic wines, half-dozen bottles each, 5

25th. For the 2nd best, " " " " dip.

Plowing Match.

1st. For the best double plough, as shown by work done, and the test of the dynomometer, $10

2d. For the 2nd best, " " " " 5

3rd. For the best 4 horse plow, as shown by work done, and the test of the dynomometer, 10

4th. For the 2nd best " " " " 5

The ploughs to be drawn by horses or oxen. The trial to take place when and where the Ex. Committee may designate.

5th. For the best ploughman with horses 5

6th. For the 2nd best, " " " dip.

7th. For the best ploughman with oxen, 5

8th. For the 2nd best " " " dip.

DISCRETIONARY PREMIUMS

Will be awarded for contributions to Floral Hall.

Works of art and taste, needle-work, paintings, drawings, &c., &c.

Silver and plated ware, cutlery, &c., minerals, ores, &c., &c.

BRANCH V.

EXPERIMENTS AND ESSAYS.

EXPERIMENTS.

For each of the two best experiments, or series of experiments, on any of the following subjects, a premium as follows:

1st. Effects (in profit or loss) of the usual mode of saving corn fodder, by stripping the green blades and cutting off the tops. $10

2d. Cost and effects of sub-soil ploughing, under different circumstances of soil and sub-soil, 10

3d. Action or non-action of lime, as manure, above the falls of the tide-water rivers of North Carolina, on different soils, 10

4th. Action or non-action of gypsum, below the falls of the tide-water rivers, and on soils respectively originally rich and originally poor, and on the latter, after as well as before their being made calcareous, 10

5th. Cost and effects of bone-dust, (or phosphate of lime,) as manure, 10

6th. How late in reference to the growth, the last tillage (by plough or cultivator) should be given to corn for its best product; and whether the said last tillage should be shallow or deep. 5

7th. Best series of comparative experiments in the cultivation of corn, 10

8th. Benefits and products of guano, compared to costs; to be tested by not less than three different experiments, made under circumstances more or less different, 10

9th. Benefits or profit of preserving or applying human excrements as manure, whether prepared for sale and distant transportation, or otherwise, but the whole operation to be in North Carolina. 10

10th. Tide marsh mud, or swamp muck, or peaty soil, (either kind to be accurately described and characterized,) as manure, in compost with lime or other materials, or otherwise, $10

11th. Value of charcoal as an aid to fertility, 5

12th. Value of sulphate of barytes as a manure, especially for clover. 5

13th. *Tobacco.*—Culture, cost and profits of cultivation, and comparative effects on production, from different distances of planting, modes of priming, topping, &c., comprising at least three different experiments, 10

14th. Cultivation and comparative feeding value of rye, 5

ESSAYS OR WRITTEN COMMUNICATIONS.

For each of the best five on any of the following subjects, a premium, as follows:

1st. On improving and enriching poor land—whether naturally poor, or naturally rich, or good, and subsequently exhausted by severe cropping, 5

2d. On draining, 5

3rd. On rotation of crops, 5

4th. On the accumulation, preparation and application of stock yard and stable manure. 10

5th. On the "green sand" or gypseous earth of lower North Caroliaa as manure—and the facts and causes of effect or non-effect. 5

6th. On the properties and value of the Southern Pea (or "cornfield pea" of any variety,) and the culture thereof, whether for saving the pea ripened, or ploughing under the growth, green or dry, for manure, and as a preparation for wheat, or other grain crops, 5

7th. On the comparative profit of planting and farming, and of the two combined—improvement of land being considered, 10

CLASSIFICATION.

BRANCH I.—LIVE STOCK.

FIRST DIVISION.—*Horses.*

First Class—Thoroughbred.
Second " Quick Draught and Saddle.
Third " Heavy Draught.
Fourth " Jacks, Jennets, and Mules.

SECOND DIVISION.—*Cattle.*

First Class—Short horns and Durhams.
Second " Working Oxen.
Third " Fat Cattle.
Fourth " Milch Cows.

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THIRD DIVISION—*Sheep.*

First Class—Fine and Medium Wools.
Second " Natives or Mixed Blood.

—

FOURTH DIVISION—*Swine.*

First Class—Large Breed.
Second " Small Breed.
Third " Natives.

Premium Animals.

—

FIFTH DIVISION—*Poultry.*

First Class—Chickens in lots of three, one cock and two hens.
Second " Turkeys, Geese, Ducks, &c.

BRANCH II.—AGRICULTURE.

First Class—Farming.
Second " Agricultural Productions.

BRANCH III.—MECHANICS.

First Class—Ploughs, Cultivators, &c.
Second " Farm Vehicles.
Third " Hand Power Machinery.
Fourth " Horse " " for Farm.
Fifth " Steam " " "

BRANCH IV.—MANUFACTURES.

First Class—Pleasure Vehicles.
Second " Saddlery.
Third " Sundry Manufactures.
Fourth " Household Manufactures.
Fifth " Flowers, Fruit and Fruit Trees.

Ploughing Match.

Discretionary Premiums.

BRANCH V.—EXPERIMENTS AND ESSAYS.

A. E. CRUDUP,
Ch'm Ex. Com.

In all cases when a diploma is awarded, the person entitled to it may receive the diploma or one dollar at his option.

Miscellaneous.

From the American Farmer.

MEADOW OAT GRASS--- MR. IVERSON'S GRASS.

In the October number of the American Farmer, "P. M. C." of Bertie county, North Carolina, inquires about the value of "Meadow Oat Grass," with a view to its culture. I have had it on my farm for some twenty five years—the seed being sent to me by a friend who spoke very highly of its luxuriant growth and appearance.

It certainly presents a fine appearance on rich land; but unfortunately it contains very little nutritive matter, and is of little value either for pasture or hay. By careful analysis it does not contain *half* the nutritive matter of clover, timothy, or orchard grass; though it will grow on land too poor to produce good crops of other varieties.

It is also known as Tall Meadow Oat Grass, Andes Grass, and perhaps by other titles. Its botanical name is *Avena eliator.*

For fifteen or twenty years I have endeavored to eradicate it from the soil by ploughing and digging it up; for my stock will not eat it when any other grass—clover, timothy, orchard, herds, or blue grass, can be come at; it occupies the ground, and roots out other and better grasses. Indeed, no kind of stock appears fond of it; and although putting up very early in the spring, [often growing five to six feet high on strong land,] it is eaten very sparingly, if not actually disliked, by well fed horses, cows or hogs. For grazing sheep, it may possibly answer better, but mainly owing to the destruction in my flocks by dogs, I have longsince abandoned the raising of these most valuable and necessary animals.

If your correspondent *cannot get any other kind of grass to grow*, it may be well enough to try the meadow oat grass; but after my experience, I would rather pay a seedsman to *keep* the seed, than have it on my farm as a gift. It may however be more desirable to cultivate it at the South, where it is more difficult, owing to the hot summer, to cultivate the artificial grasses, than in this latitude; but by proper attention and improving the soil, even in Bertie county, North Carolina, it is believed a much more profitable grass may be raised. I have seen as luxuriant crops of clover growing near the borders of North Carolina as I ever saw either in Maryland or Pennsylvania.

My sole object in writing this note, is, that your correspondent "P. M. C." may have a little practical information on the subject: and although this variety is certainly preferable to having no grass, or bare fields, I consider it, so far as my experience goes, the poorest for either pasture or hay, of any I have seen.

Very respectfully, E. S.

NOTE.—The above was written some two months since, and laid aside as not worth publishing; but fearing that "P. M. C." and others, may, for lack of experience, be imposed on, as I have been in the selection of grasses, seed, &c., I forward it for such use as may be thought best; and I am the more inclined to send it after reading the wonderful account of a *new* grass, as described in the January number of the Farmer, by B. V. Iverson, of Columbus, Georgia.

As the writer gives his address and residence and indeed offering his seed for sale, we must conclude that he believes what he states, and if not deceived himself, the discovery of this wonderful grass will produce as marked an era in agriculture as did the discovery of Gold in California, in the commercial relations of the United States.

The reading about this grass reminded me forcibly of a *grass growing* incident connected with a friend of the South, a couple of years since. He stated in a letter to me that he had received a small quantity of California Timothy seed, of most wonderful growth and properties, and queried how and when it had best be sown and cultivated. It was represented, as well as I recollect, to grow from six to seven feet high—the heads from eight to twelve inches long, and each head to produce from a table-spoonful to half a gill of seed—of course valuable seed, containing much oleagenous and nutritive matter, as well as for hay. How many *tons* to the acre I have forgotten.

I gave the most satisfactory directions in my power, tho' very much guess work, knowing very well how to grow the common, but not the California timothy; desiring him to inform me of the result of the experiment, and if successful, to favor me with a *tea-spoonful* of the seed.—It was cultivated in the garden, grew luxuriantly, and for a time promised to realize all that was said of it; but at "seed time and harvest," it headed out into the *common millet*, which I had grown and discarded twenty years previously.

I do not pretend to say that this Georgia grass, this *Ceratochtoa Breviaristata*, will turn out the same article; the description of it as far surpasses the California Timothy for grazing, yield of hay, product of seed, &c., as the latter does broom sedge or hen's grass.

But let us examine into the matter a little further. Assuming the yield, value, price asked, &c., as stated by your correspondent, I have endeavored to cypher out the actual returns from 100 acres. In hay "4 to 6 tons to the acre,"—say 5 tons, after hard grazing from November to June, would be five hundred tons; value in Georgia, at prices often quoted in southern markets, $20 por ton, would be ten thousand dollars for the hay!—about four to one over our heaviest crops of any other description of grass. But take the seed crop, "100 bushels to the acre," at $5 a peck, is two thousand dollars per acre—on one hundred acres, two hundred thousand dollars!! And being "equally as nutritious as barley, it is certainly without a rival in our climate and soil;" or any other in the world, may as well be added.

The price, too, *only* $20 *per bushel*, would be quite reasonable, *considering* that a single peck, "which is plenty for a person to begin with," and that it possesses every requisite that could be asked for by the grazier, the dairy-man, the grain grower, or the planter; "stock of every kind, together with every species of domestic fowl" being fond of it, and "all *fat* throughout the winter and spring." Again, it appears to be free from all the drawbacks that all other grasses are liable to; for this grass, no freeze, however severe, ever hurts; no insect troubles it; no overflow of water retards it; no ordinary drought affects it. Nor is this all; for it is stated that "this grass re-produces itself, (without re-sowing,) for ages, enriching a field, besides grazing the stock and yielding its "hay, It does not spread, but is easily gotten rid of by ploughing under," &c. &c.

Permit me to suggest that the State Agricultural Society should order a peck or so of the seed, and distribute it amongst the members; or that the Patent Office should take it in hand, and we should soon be able to test its value in various sections of the country. If even *half* the virtues claimed for this grass in Georgia could be realized in Maryland, it would eclipse all known varieties, and then be *cheap* at five to ten times the price asked for it. I would advise "P. M. C." to give this grass a trial, in place of the "Meadow Oat Grass," though I will furnish him gratuitously with some seed of the latter, if he will advise me how to forward it.

Another suggestion and I am done. Should our friends, the five C———is, have *constitutional* scruples with regard to the "appropriation" by the Society, it might be done in the form of a premium, which you know can be awarded for any thing recommended by a committee.

Very respectfully,

E. S.

From the Southern Planter.

HYDRAULIC CEMENT PIPING, FOR CONVEYING WATER TO DWELLINGS, &c.

Messrs. T. B. and W. F. Poague, of this neighborhood, have recently obtained a patent for a *new mode* of making Hydraulic Cement Piping, which has been thoroughly tested by a number of persons in this county within the last two years, and has given entire satisfaction. By means of their piping, with the propelling power of water-rams, many farm houses, situated on high hills, are now abundantly supplied, at their doors, with ever-flowing streams of water, as pure and cool as it gushed from the spring at the foot of the hill, in some cases several hundred yards distant and upwards of one hundred feet below the level of the house. The largest pipe in actual use is three and a half inches calibre, but it can be made of any desired size. After the ditch is prepared, the piping is laid down with great rapidity as it is made from the mortar. Where the perpendicular pressure of the water is not great, it can be used at once, and in all cases after hardening a few weeks. The piping, of course, gets harder and stronger with age, until it becomes as hard as rock itself.

One bushel of cement will make six yards of piping of one and a half inch bore. Cement of the best quality can be had in any quantity at Locker's Cement Works, on the James River Canal, (Balcony Falls, Rockbridge,) at 37 1-2 cents a bushel.

A good specimen of this piping can be seen where the water is conveyed some 600 yards, by a two-inch pipe, crossing Cedar Creek twice, and at one point sustaining a pressure of thirty feet. Visitors at the Bridge will find these water works worthy of their examination.

Another specimen, 1200 yards long, which has been in successful use for a twelve month, can be examined at the Hotel of Mr. N. G. Moore, ten miles south of Lexington, on the old stage road to Pattonsburg.

The advantages of the cement piping over that of iron or lead are—

1st. Its superior durability, lasting for ever, while others rust or wear out in few years.

2d. In conveying the water perfectly pure, without poisoning it, like lead, or discoloring it, like iron.

3d. Its greater cheapness; ordinary piping not costing *half* as much as that of iron or lead. It is even cheaper than wooden pipes.

Any further information can doubtless be had by addressing the patentees, (at Fancy Hill, Rockbridge,) who are large farmers, and among the most respectable and efficient business men in the county. C. C. B.

Rockbridge, Va., Feb. 5, 1854.

From the Farmer and Planter.

THE OREGON PEA.

Messrs. Editors—A friend has requested me to let him know something about the Oregon pea. I prefer to respond through the Farmer and Planter. I was shown, during the winter of 1852 and 1853, by a friend, some printed extracts from a paper published in Memphis, Ten., giving a very glowing account of that pea.

Major. Robinson, my neighbor, having relations near Memphis, I requested him to write for some seed, which he did, but could get none. In the spring of 1853 he received a few in a letter, and gave me about 100 peas. These I planted in checks of 3 feet square. Many did not come up—I think I had about thirty stalks to come up. These grew from 3 to 4 ft. high, resembling in its appearance very much, a stalk of cotton. They branch very thick, stand erect, and do not go to vine, and keep all through the summer, a dense shade around the root. I did not try to make hay of them as I desired to save all the seed I could, and in the fall I gathered about a gallon of seed. Major Robinson planted the seed he had—about half a pint—in different places, poorer and richer ground, to test the fact which was stated about them, to wit: that they did better on poor ground than on rich. He gathered about three bushels of seed, and told me they did full as well in the poor places as they did in the richer.

I found those I planted in the garden grew too heavy a top for the stalk, and several broke down with slight wind. One of these I hung up to see if the leaves would fall off when it dried; the account said it would not, and I found it true. I tried both horses and cows with this stalk, and both seemed remarkably fond of the hay.

In October last the Rev. S. W. Jones, principal of one of the female academies at Anderson, and son-in-law to Bishop Capers, told me that by the directions of the Bishop, (while he was away on his conference tour) he had cut down some of the Oregon peas, growing in the Bishop's garden, at the following times. They were planted the 14th of April, and on the 7th of July he cut some close to the ground. These, by the first of October were as large and as full of peas as part of the same row not cut. Some of the same row were cut again by the first of September. These last had grown 8 or 10 inches high, and had a few peas on them the 25th of October, when I saw them. Not abundant, however, nor were they fully ripe, and were killed by the frost of the preceding night.

This experiment shows that two entire crops of hay may be got from them in this climate, and if a good fall, plenty of seed may be saved, for the seed ripened on those cut the 1st of August.

These are all the facts I know about the Oregon pea, and I do not wish to be extravagant about them, for I have no seed to sell. But I am so fully impressed with their great value to the planters of this and all the Southern States, for hay as well as to improve worn out lands, that I intend to plant what seed I have saved again in checks of 3 feet square, one seed in a check, for I am anxious to make the most of them I can. I think it due to say that the accounts of this pea, published in the Tennessee papers, and copied into the February number of the Farmer and Planter, although thought to be very extravagant, have been fully realized by the few experiments I have seen.

Respectfully,

R. F. SIMPSON.

March 27th, 1853.

THE HORSES IN THE UNITED STATES.

The Boston Transcript says: "The first horses brought into any part of the territory at present embraced in the United States, were landed in Florida, by Cabeca de Veca, in 1527, forty two in number, all of which perished, were otherwise killed. The next importation was also brought to Florida, by De Soto, in 1539. In 1608, the French introduced the horse into Canada. In 1609, the English landed at Jamestown, in Virginia, having seven horses with them. In 1629, Francis Higginson imported horses and other domestic animals into the colony of Massachusetts Bay. In 1625, the Dutch Company imported horses into New York. In 1650, the French of Illinois were in possession of a considerable number of horses.

According to the census returns for 1850, there were 4,335,358 horses in the United States, *exclusive of those in cities, which were not returned.* The four and a half millions of those animals in the United States, constitute a proportion of one to five of the inhabitants. New York has one horse to seven persons; Pennsylvania one to six and six-tenths; Ohio, one to four; Kentucky, one to three free inhabitants.—In Ohio, and the new States of the Northwest, the increase of horses has kept pace with that of the population.

The number of horses in the United States is more than three times as large as that in Great Britain. A recent report in France shows that there are in that country 3,200,000 horses.

Female Education.—No woman is educated, says Burknap, who is not equal to the successful management of a family. Although it does not require so much to rule a household as it does to govern a state, still it requires talent of the same kind. As he makes the best general who has begun at the lowest post, and passed up through every grade of office, as he makes the best admiral who entered the navy in the most inferior station; because they, and they alone, are acquainted with the whole compass of a subaltern's duty—so that woman will manage a family with the greatest ease and efficiency, who knows, experimentally, the duties of every member of it.

Daughters who neglect this part of education are entirely without excuse, and their mothers are still more to blame. The very apology which is often made for the neglect of it, is the greatest condemnation of those who offer it. It is said by those who are growing up in ignorance of these things, "Any one can learn to keep house when it is necessary. Any one who loves her husband and is devoted to his interests, will make herself accomplished in those things after she is married." As well might the young man say, "O, what use is it for me to learn a profession, or make myself acquainted with the details of my business? When I am married, if I love my wife, it will then be time enough to learn a profession, or to accomplish myself in the details of business." Would there be any surer omen of total failure and discomfiture? That which a woman can learn to do under the tuition of love, can certainly be learned to much greater advantage, under the tuition of a mother.

If it is at all so easy to learn, then they certainly are utterly inexcusable who neglect it. It is no degradation to the finest lady to know all the details of domestic affairs. It is honorable, and ought to be her pride. A woman, though she may be as beautiful as the morning, as wise as Minerva, and as accomplished as the Graces, ought to know the details of household affairs.

Soil of the South.

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Duties of Educated Women.—The education of women, like that of men, should tend to prepare them for their duties; the difference of employments will, of course, render the studies different. It is the duty of women to educate their children, the boys until a certain age, and girls until they are married. How much wisdom is requisite to manage the mind and disposition of each child, so as to guide their intellects, manage their humors, to anticipate the effects of their growing passions, and to rectify their errors. How much prudence should a mother have in order to maintain her authority over them, without losing their friendship and their confidence. Surely the mother of a family ought to possess a religious, mature, firm mind, acquainted with the human heart. St. Paul attaches such importance to education of children, that he says it is by "mothers the souls of children are saved." I shall not attempt to specify all that they ought to know, in order to educate their children well. To do this, it would be necessary to enter into an entire detail of their studies; but we must not omit the subject of economy. Women in general are apt to neglect it, and think it proper only for the lower classes; those women especially who are brought up in idleness and indolence, disdain the detail of domestic life. It is nevertheless, from ignorance that the science of economy is despised. The polished Greeks and Romans took care to instruct themselves in this art. That mind is of a low order which can only speak well, and cannot act well; we often meet with women who utter wise maxims, yet, nevertheless, are frivolous in their conduct.

A True Wife.—She is no true wife who sustains not her husband in the day of calamity, who is not, when the world's great frown makes the heart chill with anguish, his guardian angel, growing brighter and more beautiful as misfortunes crowd along his path. Then is the time for the trial of her gentleness, then is the time for testing whether the sweetness of her temper beams only with a transient light, or like the steady glory of the morning star, shines just as brightly under the clouds. Has she then smiles just as charming? Does she say "affliction cannot touch our purity, and should not quench our love?" Does she try by happy little inventions to lift from his sensitive spirit the burden of thought?

There are wives—nay, beings, who, when dark hours come, fall to repining and upbraiding—thus adding to outside anxiety, the harrowing scenes of domestic strife—as if all the blame in the world would make one hair white or black, or change the decree gone immutably forth. Such know not that our darkness is heaven's light; our trials but steps in the golden ladder, by which if we rightly ascend, we may at last gain that eternal light, and bathe forever in its fullness and beauty.

"Is *that* all?" and the gentle face of the wife beamed with joy. Her husband had been on the verge of distraction—all his earthly possessions were gone, and he feared the result of *her* knowledge, she had been so tenderly cared for, all her life. But, says Irving's beautiful story, "a friend advised him not to give sleep to his eyes, nor slumber to his eyelids until he had unfolded to her all his hapless case.

And that was her answer with the smile of an angel—*Is that all?* I feared by your sadness it was worse. Let these beautiful things be taken—all this splendor, let it go, I care not for it—I only care for my husband's love and confidence. You shall forget in my affection, that you were ever in prosperity; only still love me, and I will aid you to bear these little reverses with cheerfulness.

Still love her!—a man must reverence, aye liken her to the very angels, for such a woman is a revelation of heaven.—*Mrs. Denison.*

THE FARMER'S JOURNAL.

RALEIGH, N. C., JUNE, 1854.

TRAVELING AGENTS FOR THE JOURNAL.

John Collins, and Luther Root.

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Henry Elliott, Esq., Cumberland Co.
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FARM ECONOMY.

There is, perhaps, nothing in which the farmers of North Carolina are so deficient as in the economy of their general farm management.—But, says the "wise-acre" farmer, "what does this man mean by talking to me about economy in farm management, when I know that it is a principal study with me to be as saving as possible with everything about the farm. I use the hoe until it is worn to be as small as my hand, an axe until the bevil is worn entirely away, a plow until the point and mould board are in such a condition as to require twice the amount of labor to execute the same work that a good plow would, if used." These, with many others of what we call extravagances, are regarded by many farmers as strict economy. "A penny saved is a penny gained," says the immortal Franklin, and how many might be saved, which are lost by farmers, using badly worn out-tools, instead of good ones. Only think for a moment how much more work a hand can accomplish with a good tool than an indifferent one. This want of economy is not, we are sorry to say, confined to tools upon the farms, but it may be seen in every feature of our farming; look, for instance, how much is generally paid out by our farmers for mules and horses, all of which they could raise themselves with one-half the expense at which they now obtain them.—As an instance of the great loss we yearly sustain in this way, we will mention here that we were told a short time since by a highly intelligent farmer in Edgecombe county, that he had made an estimate of the money paid for mules during the last year, by the farmers of that county, and to his perfect astonishment the amount was nearly forty thousand dollars. While upon this part of our subject, we will remark that every farmer after having been engaged in the business for three years time, should raise his own horses and mules. It should be done in this way: it is understood that every farmer who manures to any extent during winter, must have some extra teams to enable him to do his hauling and heavy plowing, and instead of using mules for this purpose, let him get large, well-formed mares, and so arrange it that they do not work during the summer at all, and let them drop their colts in July or August, and by the latter part of the fall the colt will have a good start, and will suffer but little if any injury from the mother being worked. There is much unnecessary loss sustained in manures by our farmers, which, with a little more care, might easily be avoided. It seems really inconsistent to see a farmer eagerly seeking after guano, lime, bone-dust, and plaster, to apply to his land, when he has neglected his barn-yard manure, containing the same elements as these substances contain, and in a state of solution too, which renders them available at once as food for plants. We will carry this subject farther, and speak of one act of extravagance, of which nine tenths of our farmers are guilty, and that is, in cultivating too much land. Let a farmer reflect for a moment and see what he gains by tilling a field which does not produce more than three barrels of corn, or seven bushels of wheat or oats. This amount will about pay expenses of cultivation, and the farmer who tills such land is left annually without any surplus, and his land is wearing down, year after year. We ask, would it not be economy in such a farmer to till less land, sell one half of his farm and apply the proceeds to the improvement of the balance. We ask our readers to think of what we have here suggested, and for the future, endeavor to use only good tools, raise their own stock, and cultivate small farms, and cultivate them well.

A MANURING FORCE.

Every farmer should, if he has not done so already, appropriate a part of his force to the constant making of manure. Wherever this plan has been adopted, it has been crowned with success, and we have heard farmers say that those hands who are engaged in this branch of farming pay a better profit than others who are directly engaged in cultivating the crop. Some farmers, upon whom we have personally enjoined this course, say that they are not able to pursue such a plan, that they are compelled to have all their hands engaged in tilling the crop in order to make enough to support the family. To such farmers let us ask the question; whether it would not be better for them even to borrow money at legal interest to buy provisions to make up the deficiency for one year in order to make a beginning to enter upon this plan, than to be working a large force upon a large quantity of poor land. If such a course as is here suggested is pursued for one year, the farmer will have gotten a start in manuring and he then can go on adding year after year to the quantity, and his land will yield him better crops and will be in a better condition besides than before. Suppose a farmer has fifteen working hands, and he puts three of this number to accumulating manure, furnishing them with the necessary team to get up muck, marl, ashes, &c., he will at the end of the year have enough manure to liberally apply to the whole amount of land cultivated by the remaining twelve hands. The result of the first crop grown from the application of this manure will be an increase of one-third at least. Here you see the three hands with their team will pay as much as five other hands actively engaged in cultivating the crop, besides furnishing an increase in the next crop of one-fourth. Let every farmer recollect that it does not cost as much to cultivate rich land as that which is poor, and that all that is made, over and above what is necessary to support the family, is that much clear gain.

THE REGULATIONS AND PREMIUM LIST FOR THE NEXT STATE FAIR.

We have the pleasure of laying before our readers, in this number of our paper, the regulations and premium list for our next Annual Fair, which will occupy a large space, but we feel confident that our readers will be interested in them. We are requested by the Executive Committee to say that there are no doubt many articles which they should have noticed and offered premiums for, but they have been unintentionally overlooked; but let all such as are not named here be brought to the Fair, and if excellent of their kind, premiums will be awarded for them under the head of miscellaneous articles. We feel it our duty to say that much credit is due Dr. E. A. Crudup, for the untiring labor which he bestowed upon the regulations and premium list before he submitted it to the Committee for inspection. We hope that the Society may ever be so fortunate in getting chairmen of the executive, and committees of arrangements, as in the present instance, in the appointment of Dr. Credup and Major Nixon. We hope that every paper in the State, favorable to the advancement of agriculture, will copy the regulations and premium list.

Simmon's Cotton Plow.—We tender our thanks to James Simmons, Esq., of Weldon, N. C., for a specimen of his highly popular cotton plow, which stands so deservedly high among the cotton farmers. Those who wish this plow can obtain it by addressing James Simmons, Esq., Weldon, N. C., or Messrs. Borum & Fisher, Norfolk, Va.

OUR SUBSCRIBERS.

We are frequently told by subscribers to continue their papers if they should forget to renew their subscriptions at the beginning of the volume. This we would do if we could recollect their names, but we cannot. Our terms are known to all, and in order to remind our old subscribers that a new volume had begun, we sent the April number to all, which surely should have reminded them of their duties. The price of the Farmer's Journal is only a dollar, and it seems to us that no farmer ought to complain because we require payment in advance. We have to pay cash for work done, and we hope that we shall not be blamed to exact as much from others who enjoy the fruits of our labor.—We insist upon those who order the Journal, writing their names, and that of the post-office and county, plain. We sometimes get letters with no name at all signed, and we are blamed for not forwarding the paper. We have forwarded the May number also to old subscribers, who have not renewed, to remind them again of the termination of their subscription with the end of volume 2.

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The First Cattle Convention of the U. S. Agricultural Society.—We publish in this number of our paper a notice of the first Cattle Convention of the United States Agricultural Society, which will be held in Springfield, Ohio. There cannot be a question of doubt, but that much good will result to stock raising from such an exhibition; indeed, there will be a better opportunity of getting fine cattle there at any of the State Fairs, and no doubt the crowd will be large. We hope that the Old North State, will be represented on that occasion, both by a goodly number of cattle as well as citizens.

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Change in the Direction of Letters for the Journal.—Persons who send money hereafter for the Farmer's Journal, will address W. D. Cooke & Co., Raleigh, N. C., which will enable them to get the paper forthwith, as there will then be no changing about. Communications for publication in the Journal will be addressed to Dr. J. F. Tompkins, Raleigh, N. C.

Communications.

For the Farmer's Journal.

Mr. Editor: The first number, volume III. of your Farmer's Journal was received by me a few days since, and I assure you its improved appearance gave me no little pleasure; it will now compare with the best publication of the kind in our country, and it is to be hoped and expected it will meet with that encouragement it so richly deserves.

In complying with the terms of publication, you will find one dollar enclosed, and I am sorry it is not in my power to accompany it with five other subscribers. Having resumed my pen to write you, I am reminded of a former promise to send you at convenient times a short communication relative to my experience in agricultural operations. At the commencement of my farming life, I was impressed with the belief that much depended on the selection of good seed of every kind to insure a good crop, and for many years my attention has been drawn particularly to the improvement of wheat with the desire of obtaining a kind which we might depend upon with a greatar degree of certainty and success; I have put myself to much trouble and expense in sending to at least five different States, and obtained as many different kinds, hoping among some of them to find a variety of kinds from which I could select the desired seeds, but in nearly every instance have failed, in consequence of being so late in maturing; rust was the certain doom.

Several years back, I succeeded in getting a a tobacco wagoner from one of the upper counties of this State to bring me two bushels of the most approved kinds then sown in his section; this was a large, full berry, inclined to be a yellow cast and bald head, (not hearing any name given it, I called it the Mountain Gennessee, and on trial, found it superior to any before obtained and took great pains in distributing it from Hyde to Edgecombe; every one who tried it gave it the praise of surpassing any wheat before sown—but in a few years it became subjected to rust, smut and chaff, and we had to abandon it. Three or four year since I obtained a small parcel of wheat from a friend in Virginia, (the county not recollected,) which I had sown the first of October, on ground well prepared and fertilized, and flattered myself that I should from this kind find a splendid variety; it looked finely and promised an abundant yield, but about the time the bloom began to fall and the grain nearly made, I discovered the appearance of rust and in a short time my hopes were blasted; the heads were flatten and worthless. While passing through a part of the field I discovered a small bunch of heads standing upright with bright golden straw, and perfect grains of a beautiful yellow appearance, this being so uncommon an occurrence, to see untarnished a few straws, while the surrounding had fallen to the ground and was worthless, attracted my attention, and I was induced to pluck them off and carefully preserve them for another trial. The contents was drilled the 10th October in my garden and cultivated with the hoe, it grew and produced up to my expectation, and from which I have obtained the best and most certain kinds yet known by me. Inclosed you will find a perfect head of this spring growth. At some convenient season (should my life be spared,) I will send you the improvement made in seed corn, the mode of housing it, &c., together with that of cotton, and my opinion of the Oregon pea so highly recommended.

Yours, J. B. MARSH.

Belmont, May 1, 1854.

For the Farmer's Journal.

SPRINGFIELD, OHIO,
May 18, 1854.

DR. J. F. TOMPKINS—*Dear Sir:* The 25th, 26th, and 27th days of October next have been fixed by the United States Agricultural Society for holding its first Cattle Convention, in the City of Springfield, Clark county, Ohio.

Six thousand dollars will be distributed in premiums for the best stock of the various breeds of cattle subject to competition without territorial limit.

The Executive Committee of the United States Agricultural Society have been careful to select a time that will not, so far as they are aware, conflict with any of the State Fairs or other meetings of general interest; and after due deliberation have selected this place as the most eligible for holding the Cattle Fair. Springfield is centrally located, as regards the cattle region; it is most convenient of access by railroad from almost every point of the compass.—The means for accommodating, at very moderate charges, a large number of persons are ample. Private houses will be opened for the reception of guests. There are also eighteen cities and towns within reach by an hour's ride on the railroads, on which extra trains will be placed to accommodate such as wish to go elsewhere for lodgings.

About twenty acres of ground have been enclosed, and more than three hundred stalls will be prepared for the shelter of cattle during the convention.

It is expected that very liberal arrangements will be made by all the railroad companies, both for the transportation of cattle and the conveyance of passengers to and from the Fair.

We respectfully solicit your attendance on the occasion, and that you will furnish us with such aid as you may feel disposed, in making known the objects, time, and place of the convention; and if you have improved stock or cattle, of any description, we cordially invite you to enter them for competition.

A list of premiums and a copy of regulations will shortly be published.

Very respectfully, yours,

J. T. WARDER,
C. M. CLARK,
CHANDLER ROBBINS,
Local Ex. Com.

We respectfully request you to give this communication a prominent insertion in your paper, accompanied with such editorial remarks as may promote the objects in view.

For the Farmer's Journal.

GUANO FOR VEGETABLES.

MR. EDITOR: From experience I am able to say, that a sure way to have a plenty of good, early, and nice vegetables, is to put a reasonable quantity of Peruvian guano in your garden before planting your seed. If you broadcast it, then there should be at least three hundred pounds per acre, if your garden is not very rich; if it is, half the quantity will suffice. If put in the drill a small quantity should be sprinkled in the first furrow, and then well covered up, so as to prevent the seed from coming in contact with it. Guano will prevent insects from devouring the small and tender plants.

Every farmer should prepare, at least, one acre for gardening, and get a good supply of garden seed; this being done, the family can be more than half supported from the garden.—There is yet great room for improvement in horticulture as well as agriculture. B. A. W.

For the Farmer's Journal.

PROTECTION OF SHEEP.

GREEN COUNTY, N. C.,
April, 1854.

MR. EDITOR—*Sir:* I have received the April number of the Farmer's Journal, which I have read with a deal of interest, so much, that I have procured for it another subscriber. Sir, I do most heartily concur with H. J. B. Clark, in saying, protect our sheep; yes, let us have protection, and let us have it speedily. For, sir, notwithstanding we have a good country for growing wool, and wool can be grown at a trifling cost; yet, I say notwithstanding all this in our favor, the depredations by the multitude of worthless dogs that stroll over the neighborhood, committed on our sheep, saps the very foundation and renders wool-growing almost a worthless business. Just let our sheep have protection from those worthless whelps, and wool will be grown; and let the Legislature of N. C. lay a sufficient tax upon dogs and we shall have protection in a great measure from the depredations of those worthless whelps, not only upon our sheep, but in our poultry yards also. Then, sir, you will find that we can have fried eggs for ourselves and some for you too; and that is not all, pretty soon you will find substituted for the thin cotton clothes now worn to school by the poor farmers' children, a thick woolen one, which will be considerable more protection to the children from the cold. And let the legislature add to the Literary Fund the proceeds of said tax, (and who will be the loser) and our children will have a little more protection from ignorance. Then, sir, let us have protection in a way that no one is loser, but every one is gainer, by taxing our dogs to get rid of the worthless ones, and thereby raising more poultry, growing more wool, giving our children warmer clothes, and a little more education, &c., &c.

G. M.

A friend to sheep and children.

LONG STREET, Moore Co., N. C.,
May 3, 1854.

DR. TOMPKINS, *Dear Sir*:—I hope you will pardon me for my delay in sending the dollar for the Journal the present year. I had not the opportunity to see my neighbors and get the five subscribers as you requested until this morning when I took the Journal (in its new dress,) with me to a small gathering, and with very little effort I am able to send you a list of twelve, which is the result of half an hour's labor. Others wished to subscribe, but I was hurried off and could not take their names, and I told them I was done taking in, (as Brownlow said by the whigs in 1840.) You will please send the April number immediately to those new subscribers, some of which I think will be able to swell your list considerably if they but make an effort. The Journal is so much improved in good reading matter as well as size and dress, that I think any subscriber you have could easily get five more.

Very respectfully, yours,

E. S. PATRIDGE.

County Fair.

WAKE AGRICULTURAL FAIR.

The Wake County Agricultural Society have resolved to hold a Fair, in the City of Raleigh, on some day hereafter to be designated, immediately preceding the State Agricultural Fair to be held next fall, in which the Agricultural Societies of the neighboring counties are cordially invited to participate; and all persons who are members of the Wake Society, or who shall pay the admission fee of the same, wherever resident, will be entitled to the privilege of contending for its honors and premiums, which shall be as follows:

Premiums offered by the Wake Agricultural Society, to be awarded at the Fair to be held October, 1854.

For the best original essay on hill-side ditching,	$10
For the best on reclaiming worn-out land,	10
For the best original essay on manures generally united and accessible to the soil and condition of Wake County,	15
For the greatest quantity of Indian corn, wheat, rye, oats, corn-field peas, sweet or Irish potatoes, beets, carrots, or turnips, cotton and tobacco, raised on an acre of land, which would not yield more than three barrels of corn in an unimproved state, accompanied with a statement and having the method of cultivation, each,	5
For the largest quantity of hay cultivated grass to the acre,	10
For the best specimen of tobacco manufactured in the State,	1
For the best specimen of orchard fruits,	1
For the best carriage, wagon, plough or harrow, manufactured in the State, each,	5
For the best cart or buggy manufactured in the State,	3
For the best work-horse or mule raised in the State,	5
For the best stallion, jack or bull, imported into the State to improve the stocks of such animals,	5
For the best native breed milch cow,	5
For the best native bred calf or yearling,	2
For the best cow of foreign breed,	5
For calf or yearling,	2
For the best ox,	5
For the best sheep,	5
For the best sow, boar or barrow,	2
For the best specimen of domestic fowls,	1
For the best counterpane, quilt or blanket, (home-made,)	5
For the best specimen of domestic cloth (made in the State.)	5
For the best specimen of butter or cheese,	2
For the best specimen of flour manufactured in the State,	$2

Premiums will be awarded for miscellaneous articles, at the discretion of the Society.

☞ Raleigh papers please copy.

Miscellaneous.

IS IT POSSIBLE TO OVERDRAIN LAND?

Our views on this subject are well known to our readers, viz: "that land thoroughly drained can never suffer from drought," and consequently, as an excess of moisture cannot be beneficial, both extremes of drought and suffusion are avoided by full, deep, and thorough drainage.—We give, in the following article, a synopsis of the views of practical men on both sides of the question.—Ed.

Is it possible to overdrain land? All draining engineers of the present day, and, we believe the majority of the most enlightened farmers, will answer this question in the negative, as regards arable land. With respect to grass land, there is as much difference of opinion on this subject among draining authorities as there is repecting the proper depth, distance, and direction of drains. Smith, of Deanston, was a shallow drainer; he acquired celebrity with drains only two and a half feet deep. When Parkes had given popularity to drains of five and six feet, Smith still argued in favor of his own two and a half feet drains, but modified his practice to three and three and a half feet, which those who professed to be his disciples have increased to four and four and a half feet. We have heard him contend that there was no arrable land, however dry, which would not derive benefit from being drained, except alluvial flats; and as proof of the possibility of overdraining them when under arable culture, he instanced the Lincolnshire fens as yielding superior crops of grain in a dry season—we think it was 1844—where the water level had not been reduced below 3 feet. He appealed also to the necessity which is found to exist in that district, of introducing the water into the ditches in the summer, when the situation of the land below the level of the rivers permits it to be done. Among modern draining engineers, much difference of opinion prevails on this point, as regards pasture land, or rather mowing ground, and peaty soils. Mr. Parkers—but we only know his opinions at second-hand—contends, we are told, for deep drains on all soils and under all circumstances. We have heard another draining engineer, who enjoys considerable celebrity, declare that he would travel a hundred miles to see an overdrained meadow. The quantity of hay, he said, might be diminished but the quality would be improved; and he clenched the argument by his usual *ultima ratio*—a bet. We know him to be a wise man, or we should have been reminded of the celebrated axiom in Hudibras, of the mental qualifications of those who, for arguments, use wagers. We heard at the same after-dinner discussion, the opposite opinion maintained by one whose celebrity in the same profession is equally great. In support of his views, he appealed to the general experience of "practical farmers," though by no means inclined to bow to their experience and authority with regard to the advantage of draining land across the fall of the surface instead of along it. An eminent gardener was present, who contended that, with garden crops, no detriment, but the contrary, is found to result from the reduction of the water-table to four feet from the surface. The engineer cited the case of the gardens about Bermondsey and Deptford. It had often struck us, in passing them, that they were suffering from insufficient drainage—the water standing, in the ditches, within two feet or one and a half feet of the surface. We had imagined, in our simplicity, that the cultivators of those grounds accept this as an accomplished fact, a necessity, from which there is no escape; and we had supposed that it is merely by means of the lavish supplies of the richest London manure which they enjoy, that they overcome the difficulty against which they are thus obliged to contend. Our friend, however, assured us that they prefer the conditions under which they are placed, and would deprecate nothing so much as the draining of their their land. It was rejoined, on the other side, that their land is an exceptional case; that their crops are chiefly of a succulent kind, requiring large supplies of moisture—among which celery, by nature a marsh plant, holds a prominent place; and that the soil, moreover, is of that almost peaty kind, which most of those who contend against the possibility of overdraining admit to be of the exceptional character. We took another view of the question. We knew the contiguity of these garden grounds to Plumstead marshes; we knew that the majority of the owners and occupiers of those marshes are enemies to draining, or at least, hold that the benefits to be derived from it are of so equivocal a kind, that if they are to be drained at all, it is chiefly on sanitary grounds that the draining is necessary, and therefore that the work ought to be undertaken at the expense of others rather than of themselves. We know that opinions are contagious, and thought they might have extended from the farmers to the gardeners. We know, moreover, that among the farmers who occupy those marshes, there are some—and those by no means the least successful cultivators—who hold the opposite opinion, who have underdrained their land as deeply as the present outfall will permit, and who would drain it deeper if they had the opportunity. The current of opinion among the tenants of alluvial tracts, which are chiefly under grass, sums, as far as our information goes, in favor of the possibility of overdraining; but we are not quite sure that they belong to that class of farmers whose opinions are to be implicity received; they belong too often to the stand-still, do-nothing order. Alluvial tracts are generally rich; they yield spontaneously a large produce; and it is not in such districts that the best farming is usually found. The occupiers of such tracts generally content themselves with collecting, with the least possible trouble and outlay, the natural produce of the soil. We have not in our eye the Welsh farmer of such land, who remarked to a neighboring landowner, "Upon my word, Mr. Outfall, the new agents will spoil our land; we shall have no rushes to thatch with;" neither have we in our eye another Welsh farmer, who, on being asked why he did not drain his farm—and there never was a farm which required it more—replied, "if the Almighty had intended it to be dry, it would have been drained by nature." We allude to the occupiers of alluvial tracts in England—in countries where the farm is not considered to be below par, but in which the neglected state of the marsh land, rich though it generally is, exhibits a lamentable contrast to the energy displayed in the improvement of the poorer uplands. Towards the close of the discussion a proposition was advanced, which appeared intended, like some of the diplomatic notes of which we have heard so much of late, to reconcile the conflicting views of all parties. It was to this effect—that draining is imperfect, unless accompanied by irrigation; that we ought, by draining, to remove surplus water during the winter, and to have the power of restoring moisture in the summer. For ourselves, we took little part in the discussion, maintaining a discreet silence, or only observing, with Sir Roger de Coverley, that there is a great deal to be said on both sides.

We have, however, considerable doubts of the truth of the proposition advanced, as we have stated, for the purpose of effecting a compromise between two opposite opinions. We doubt whether it is necessary to have recourse to the double and expensive process of deep draining, followed by irrigation. We doubt whether there may not be a certain medium depth of drain, dependent, of course, on the nature of the soil and sub-soil, which will remove the excess of moisture in wet weather, as from a sponge saturated with water, and yet retain, like a damp sponge, sufficient moisture for the purpose of vegetation in dry weather.

In this respect, as in most others in which vegetation is concerned, we cannot do better than take lessons from nature, by the observation of those fertile soils which enjoy the happy medium, and yield the most abundant crops, without requiring either to be drained or irrigated.—*Farmer's Magazine.*

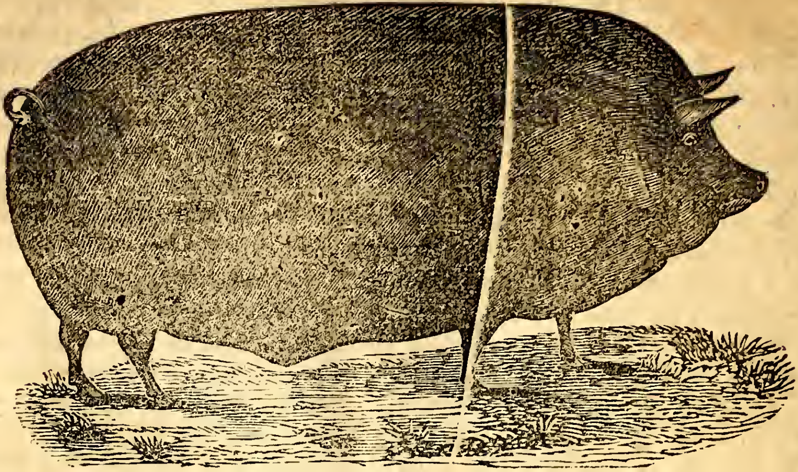
Prosperity invariably follows skill, industry and economy.

How to make Strawberries.—The following instructions for increasing the productiveness of strawberry beds, was handed us by Mr. Danforth for publication. It was sent by a lady of Savannah to Mrs. Shivers of Wynnoton, who handed it over to Mr. Danforth. It was obtained from a gentleman of Savannah who has been eminently succesful in cultivation of the fruit and from the phraseology of the directions, we suppose it was originally published by some man in Charleston.

Mr. Shivers informs us that Mrs. Shivers tried it last year, and that a small bed which had be enbefore almost entirely unproductive yielded in great abundance.—*Georgia Watchman.*

Those who know any thing about the magnificent strawberries, and immense quantity of them raised in a bed thirty feet by forty, for several years past, in the garden formerly owned by me in King street, may like to know the process by which I cultivated them. I applied about once a week for three times, commencing when the green leaves first began to start, and making the last application just before the plants were in full bloom, the following preparation: Of nitrate of potash, of glauber salts, and sal soda each one pound, of muriate of ammonia one quarter of a pound, dissolved in 30 gallons of rain or river water; one third was applied at a time, and when the weather was dry, applied clear soft water between the times of using the preparations as the growth of the young leaves is so rapid unless well supplied with water the sun will scorch them. I used a common watering pot, and made the application towards evening. Managed in this way, there is never any necessity for digging over the bed or setting it out anew. Beds of ten years old are not only as good, but better than those of two or three years old. But you must be sure to keep the weeds out.

A Large Pig.—Samuel Alden, of Lyme, N. H., killed a half bred Suffolk pig, that at eight months and twenty-four days old, weighed, after being dressed, and exclusive of the rough lard, four hundred and one pounds! So says the editor of the Boston Cultivator.—*Wool Grower.*



THE SUFFOLK HOG.

The above cut represents the Suffolk Hog, which with improved stock raisers, is becoming popular. The bones of this animal are small and the head and neck large, and they weigh much more than their appearance would indicate, and they are easily fattened at any age. The Chester hogs which have stood high with our farmers are fast loosing ground, for the reason that they have too much length of body and require to be two years old before they will fatten kindly. A cross of the Suffolk upon our common stock would be quite an improvement.

From the American Farmer.

SAVING CLOVER—ECONOMY IN THE USE OF AGRICULTURAL MACHINERY.

As requested at our recent interview, I will briefly give my "mode of harvesting clover seed with the mowing machine, and also the manner of preparing the seed for market." I will also add a few remarks as to the decided economy to farmers, of machine overhand work, in securing our crops.

A large portion of my crop of clover seed, the past season, was so fallen and lodged, that scarcely half the seed could be saved with the cradle; consequently, we were compelled to resort to the slow and expensive mowing with scythes, or use the machine. The trial with cradles, resulted in breaking out the fingers, and leaving much of the best seed uncut; the scythe was both too slow and too wasteful.—Indeed to look over the fallen and tangled mass of vegetation, persons unacquainted with the machine would have supposed it impossible to cut it clean, with any thing short of the scythe.

The machine (one of Hussey's improved) was set to cut rather higher than for mowing, and by a side delivery of my own construction, the seed was delivered at the side and out of the track, in straight loose bunches, in the best possible order for curing and taking up afterwards: and with almost the precision of clock work. It was one of the most beautiful and perfect farm operations I ever saw—scarcely leaving a head standing to the acre, and literally leaving nothing for the rake to glean afterwards. It was completely cut and raked, in about one-third the time the same hands could have properly raked it alone. We would occasionally, though not often necessary, throw out of gear, pass on through the cleared track, and only cut across and against the lean; in this way every head raised up four to five inches high, or above the guards, [snakes' heads included,] was not only cut, but *saved* on the platform. We could well afford to lose a little time in this way, when the machine was doing the work of full ten to a dozen scythes.

The seed is usually left from five to ten days in this state, in order to make it hull more readily; and a shower or two on it, improves it both for the threshing and hulling operations.—At a leisure time in winter, and in cold dry weather, we pass it through the common wheat thresher to separate the heads from the straw. If in good order for threshing, the spike concaves are removed, and blank ones substituted in their places, which answer a better purpose; avoid, cutting up the straw, and render the raking much less tedious.

The next operation is the hulling; this is done either by running it two or three times through the same machine (spike concaves replaced) as fast as it can be forced in by a board fitting the opening, and having a short handle in the centre, fifteen or eighteen inches long. It is then fanned, when the unhulled seed, falling near the fan, and being much reduced in bulk, may all soon be hulled by passing four or five times through the machine; and secondly, by an opening to feed in the front of the thresher, about nine or ten inches wide, and another opening at back, at the opposite end of the cylinder, the chaff passing diagonally through: but this plan, without much care, is very apt to cut or break too much seed; neither does it save much time, as the feeding is necessarily slow.

An efficient machine that will hull and fan at the same operation is a great gain; for the hulling alone is a short job compared to the fanning. I used a hulling machine this year for experiment, instead of the thresher, (without fan attachment) but lost considerable seed; perhaps a bushel or more from cutting the seed. It is a tedious, and very annoying operation, from dust, to hull with the thresher and fan afterwards; but all the portable clover machines with fan, that I have seen, cost from $75 to $100—too expensive for general use, and often cutting the seed. I am satisfied, however, after some year's experience with the crop, that an efficient and durable machine with fan, may be made for about half the money.

My crop of seed this season on seventeen acres, yielded forty-three bushels cleaned and ready for market: besides sowing a large cart load of partially hulled chaff, not considered at the time worth hulling over, but proved afterwards by hulling a similar lot, to contain from three pecks to a bushel of seed; without close attention, considerable loss may occur in throwing out the chaff, or sowing the seed too thick, in the chaff. The crop at the present market value, is worth near $300; and did not cost me, all expenses included, over $15 to $20; two-thirds to three-fourths of this, is chargeable to the in-door work.

The average yield on so many acres is rather unusual; the more so, as over half the ground had produced two crops of grass, and on several acres of this the clover seed was quite light. I attribute it to two causes; first, to the liberal use of lime; for without it, the yield would not have been a peck of seed to the acre; at least, the land never produced any to my knowledge, previous to my liming; nor in fact half a crop of any thing else for me, except briars, broom, sedge and sasafras bushes. And what is quite as much to the purpose, this single crop of seed amply repays me for all the lime, bones, and other manures used in renovating the land. To judge by the general appearance of the crop, probably two-thirds of the seed, or some three to four bushels to the acre, was grown on about eight, of the seventeen acres; it being the first crop of seed, and having one hundred and fifty bushels of lime to the acre, in two applications; and on this portion of the land, doubling the lime has certainly more than doubled the product in the grass and seed; in fact, of all the crops. And secondly, to the use of this most valuable implement, the mowing machine.

In this crop of seed, and the grass crop, just preceding it, the *saving* was not less than $50—I think more, and that it is susceptible of easy demonstration. To have secured the seed crop with the scythe, would have cost me one dollar an acre, besides the cost of hand raking; added to this, is the loss in seed from shattering off, and certainly not less than one peck to an acre, or four and a quarter bushels; equal to $50 in wages and loss of seed, before leaving the field. Now with the machine, two hands cut the whole in a day and a half, saving the raking entirely, and consequent loss, doing the work in from one-eighth to one-tenth part of the time, and doing it much more perfectly, and with materially less loss in seed, than was possible with the cradle or scythe, and rake.

If "Poor Richard" said truly, in his Almanac, that "a penny saved is two pence clear," my case is nearly made out: but permit me to recur again to the grass crop on the same ground, and including two or three acres more than was cut for seed. This was much heavier by reason of the timothy, and even worse lodged than the seed crop; generally estimated by those who saw it, to yield two and a half tons to the acre, or some forty-five to fifty tons. The whole was cut in about one and three-quarter days; it was cut by horses, raked by horses, and unloaded in the barn by horses, without oppression to man or beast, *without costing me a single dime for harvest wages;* in fact, during the whole of the harvest, we were short by one hand of what we often hired at other times.—Nor is this all; but for my machinery, probably half the crop would have been spoiled, or greatly lessened in value; as owing to the dry weather, the crops of grain and grass generally ripened at the same time, and the supply of hands was not half equal to the demand. Besides securing our own crops in fine order and in due season, we had leisure to help out a neighbor or two; one of whom remarked, that if I could not cut his grass, or some eight or ten acres of it, he must leave it uncut, as he could not procure hands.

I am therefore satisfied that in the grass and clover seed crops alone, the past season, the machine has saved me fully half its cost; to say nothing of any gain by its use in the grain crops, or the feeling of independence, and the satisfaction of having the work done at the proper time.

The two past seasons, we have cut over one hundred and thirty acres of grass; two crops of wheat, and two of oats; quite sufficient I think to test fairly the merits, and to prove the economy of the mowing machine over the scythe, either on small or large farms. The machine has been carefully used, and has not cost twenty-five cents in repairs, for all this work. It has *not* been, as I have repeatedly seen Hussey's reapers, forced over stone heaps, pitched into gullies with the knives cutting through banks of earth, and all brought up standing by driving against rocks and stumps; and to my amazement, when I expected a complete wreck, the machines were backed off with as little ceremony as an ox cart, the horses whipped into a trot, and the work resumed, as perfectly as if no impediment had occurred.

The great difficulty with many who are disposed to use machines, is as to the best selection, when so many new inventions and alleged improvements are being made. Without intending to detract from the merits of any, I will remark, that I visited the Crystal Palace at New York, last fall, mainly with the view to examine the many reaping and mowing machines on exhibition. The result of my observation was: for strength, durability, and efficiency as a combined machine, I saw none that was preferred to my own, improved as it now is. The reaper, however, is not considered complete, until hand raking is superseded by machinery, and delivering at the back or side at pleasure, and without the reel; which is strongly objected to, as cumbersome, very liable to get out of order, and shattering much grain when fully ripe. Whoever can effect this, at the least cost, and most durability, will be well paid for his ingenuity and skill; as it will probably be the means of introducing ten machines where one is now in use.

With a scarcity of hands in harvest, it is at times very desirable to deliver the grain at the side; we now do it very satisfactorily with one hand, in clover seed, oats, and light grain; but in heavy wheat, it should be done by machinery, if practicable, and the more powerful muscles of the horse. I am fully aware of the difficulties attending it; but after seeing what has been done so sucessfully already in the cutting, I do not quite despair of the raking, although so many have attempted it, and failed. To succeed, the machinery must *not* be complicated, expensive, or liable to get out of order; nor must it materially affect or retard the free motion of the driving wheel and knives; to do either, will cause the latter to clog or choke, and occasion much detention, if not breakages.—It must also be accommodated or adapted in some degree, at least, to the constantly changing position of the grain, ground, wind, &c.

In the opinion of many, Atkins' automaton self-raker has solved the problem of its practicability, under favorable auspices. As to the question, "Have you seen it at work, and will it meet or supply the wants of the farmer," I would answer, that I have only seen the machines on exhibition, and not in the field, where alone it can be judged of properly. It is an admirable piece of mechanism; but I fear too expensive an addition to the reaper, and probably too complicated, to come into very general or common use, with a class not proverbial for mechanical tact and skill; or for "having a place for every thing, and every thing in its place." I have often seen expensive implements, and even the reaper, left in field, "reposing on its laurels," exposed to all weathers, and from season to season. If the machine fails in its allotted duty at a busy season, as fail it must with such, and even rougher usage, is it fair or just to lay the blame on the manufacturer? It certainly is not, but is oftentimes done notwithstanding. A practical experience of some twenty-five years, as a machinist, has made me as familiar with machinery, as with farming; and I honestly express the opinion, that the sins of *omission*, by implement makers, are far less, than those of *commission*, by the ignorant and thoughtless who commonly use them.

No other subject connected with agricultural improvement, has claimed so much of my attention and interest for several years past, as perfecting the reaping and mowing machine; and substituting machinery for hand-labor on the farm, wherever practicable. That I have succeeded to some extent, at least in *saving money*, I am perfectly satisfied. In reference to the machine raking, I may remark incidentally, that a working model has recently been submitted to me, and delivering at the side, that promises, *with* the reel, and under favorable circumstances, better than anything I have yet seen; it can be made for $15 to $20 only, and perhaps, as durable as other parts of the reaper. It requires, however, to perfect it, in my opinion, to throw the rake forward, over, and into the uncut grain, like the hand rake, thus dispensing with the reel. The inventor thinks he can do this, also; but it can be only be proved in the field, not the workshop; by an operating and efficient machine, not a model.

There is, however, one thing that must be borne in mind by those who would use mowing machines to the best advantage: it is absolutely necessary to farm neatly, to clear the ground from stone, stumps, and abrupt inequalities upon the surface. For a farmer to expect to mow close and clean, without the trouble of picking up the stone, and with the knives cutting through earth and gravel, is about as reasonable, and *as profitable* too, as for a mechanic to undertake to plane up his boards covered with grit, or driven through with nails.

I am, respectfully,

EDWARD STABLER.

Harewood, 2*nd month* 15, '54.

TRANSPLANTING TREES.

For the next sixty days nearly every family of the U. States will plant one tree or more. How many of these will live and thrive as they should? Scarcely one in ten. Why? Because they are rudely taken up and afterwards stuck in hard, clayey earth, with limbs and roots torn and ragged. An instance will suffice. Farmer A. has a lane or yard which he is determined to beautify with elms and maples. He goes out to the woods, digs up tall, spindling trees, cuts off roots and limbs, throws the trunks on his wagon or sled, and drags them where he wants them.—Here he digs in the hard earth, a hole barely sufficient to contain one, and leaves them, hoping they will flourish grandly, without lungs, stomach or food. Some of them barely live, and a large majority die, Why does he not use a little common sense, get all the roots he can, clip off a few of the branches, and then dig a hole ten feet in diameter and three feet deep, and fill it with rich surface soil, placing the tree in it, at about the same depth it grew in the forest. Let him do this, and water it occasionally, and our word for it, his trees will grow right away, and not one in a hundred die.

How many thousands of fruit trees are planted in poor, thin soil, where they must necessarily perish.

As well expect a pig to thrive, when turned into a last year's wheat field. No farmer need spend his money in the purchase of either fine trees or stock, unless he knows how to take the proper care of them after they come into his possession.

HELP FOR THE FARMER.

In no one thing do people commit a greater error than in underrating the importance of agriculture and its kindred and essential adjuncts. It seems to be a prevalent idea, that while trades and professions require a regular apprenticeship, and considerable patient study, that of the farmer can be understood and practiced by any one and everybody—as though the knowledge essential to the successful cultivation of the soil could be acquired as oysters do their pearls by gaping. And yet it needs but a small amount of argumentation to show that a great deal more of solid learning, sound judgment, and careful observation is essential, if not absolutely indispensable, to enable one to cultivate the earth with pleasure and profit, than to insure success in almost any other avocation. For, be it remembered that all other arts sciences, professions and callings are in some way related to agriculture. To be sure, a man may be extremely ignorant and stupid, and still be qualified for a mere drudge—a hewer of wood and drawer of water—but we do not speak of such. We refer especially to that numerous and respectable class of producers who aim at being something more than drudges—who are anxious to qualify themselves for managing a farm, in the best possible way, and who seek to render their industry and intelligence subservient to an increase of their wealth, and their accumulation of wealth, honestly acquired, subservient to their improvement, tranquility and happiness.

Men of this class often find it necessary to employ "help"—and for such as will answer their purpose they are willing to pay a fair price. Without entering into a discussion of the rights of the employer, or those of the employee, we take it as granted that it is often mutually beneficial to both parties, for the one to labor faithfully and honestly for the time agreed upon, and for the other to pay him a fair price for the service thus rendered. But, we submit it to our intelligent readers, that no one, young or old, should claim full wages, unless he is, by study and practice qualified for the business he undertakes. We would have the farmers of our country distinguished by their open-handed generosity—willing to pay a liberal compensation to those who are employed to help them in their arduous and honorable avocation; but we would kindly admonish them that by paying too liberally to those who are mere pretenders and bunglers at the business, they virtually offer a premium for the best specimens of ignorance and laziness—thereby discouraging young men of higher aims from endeavors to become better qualified, or practically conversant with those discoveries and improvements which are so powerfully tending to ennoble and render attractive the profession of the cultivator. Mechanics unskilled in the use of tools—clergymen deficient in a knowledge of theology—doctors unacquainted with materia medica—teachers who stand in need of being taught—men of all trades and callings, destitute of suitable qualifications, are soon helped to find their places, by a discriminating public. Why should agriculture be an exception to a general rule?

Two qualifications are indispensable in a profitable hand for the farm—First, physical powers, equal to the labor he undertakes to perform—Second, intelligence, adequate to the profitable direction of those powers. Of the first, it may be said in all seriousness, that no man can possess them, unless he has been accustomed to labor, and is habitually temperate in all things. As we cannot reasonably expect to gather grapes of thorns, or figs of thistles, so we may not hope for strength, or the power of endurance, to one unaccustomed to the exercise of his muscles, or addicted to any of those pernicious habits which diminish the strength and ultimately ruin the constitution. And then, as regards the other qualification, without intelligence of the right kind—a knowledge of what ought to be done, and how to do it—a man with the physical powers of a horse is little better than a horse. He must be acquainted with those laws of vegetable and animal life which are eternal in their operation—with chemistry to the extent of its applicability to his profession—and, in a word, with whatever departments and branches of science and art are known to stand related to his chosen calling. Superadded to these are the ordinary accomplishments of a gentleman, and those agreeable habits and manners which so essentially contribute to the comfort and happiness of the domestic circle.

As the humble, yet earnest friend of the farmer, and as the advocate of his essential interests, we protest against the notion that the cultivator of the soil must repudiate refinement, or do less than aspire to the highest social position.

How are those qualifications to be obtained? This is a question more easily asked than answered. There is a way—a course to be pursued, which will hereafter be suggested. To realize their importance, is the first step towards securing their attainment. More anon.

Ornamental Trees.—If a tree has plenty of sunshine and air, with congenial soil, its beauty will be perfect, and the pruning knife should never touch it. What can add to the grandeur of a tree standing alone in a yard, or a field, or by the roadside where it has had opportunity to develope itself in all directions. Could symmetry and proportion be more complete? Let the man who has a passion for trimming and *spoiling* trees, study these models. The limbs are none too many, nor too long, and hang none too low, notwithstanding he may think otherwise. Pruner, "spare that tree; touch not a single bough."

If the girls would spend as much time with encyclopœdias as they do with milliners, they would soon find their heads as attractive as their hats.

RAISING STOCK.

There are several important principles in stock raising that are not so highly regarded by farmers as they should be. The first is to procure a good breed. This is done by selecting the best for breeders, having particular regard to certain defects that it is desirable to remedy, and some favorable features that should be cultivated, modified or increased. It is stated on good authority, that all animals possess more of the character of the male than of the female parent. The most desirable qualities of stock, especially those animals designed for food are, form, size, tendency to grow, early maturity, hardness of constitution, quality of flesh, disposition to fatten and lightness of offal. These points highly are essential to the profits of the farmer, but when they are obtained, his work is not completed. It is essential to attend to the comfort and food of animals during our long cold winters as to their quality.

Their food should be such as to keep them in a growing condition. Calves and yearlings should have some grain during the winter, and rich pasturage in the summer, well supplied with pure water. Next to their food is their comfort. They should never remain out in cold storms or after the hard frosts commence in autumn. The linter or tyeup where they are to be housed for the winter should be double boarded and made as warm as it can be, to allow a sufficient circulation of air. If there is not a cellar under the barn, it should be banked up so as to prevent any draft of cold drawing under it and up through the floor. Regularity in feeding is an essential point, that should never be neglected. We hope it is entirely unnecessary for us to suggest to farmers that it is conducive to the growth of animals to keep them clean and give them a good bedding of straw or something similar to it to sleep on, to be well carded every day, and to be supplied with salt as often as once a week, if they do not keep it under a shed where they can go to it when they please. Farmers are too well aware of the importance of these things to need to be reminded of their necessity, and we presume no one neglects them.

GREEN CROPS.

I am becoming every day more satisfied that the science of farming must look "upwards;" that the air we breathe is the great fountain that sustains animal as well as vegetable life; and that the great primitive source of all the richness in our soil is from the air. Nothing is destroyed. No sooner does the animal and vegetable die, than it commences its round of change until it returns to its original elements, and is prepared to be remodled into new animals and vegetables. Let man do his worst, and he cannot destroy one jot or tittle of substance; neither can he impoverish the earth so that skillful agriculture cannot restore. My neighbor, an intelligent man, has collected all the barn-yard manure he could buy, and has mingled with it caustic lime, and has made an immense heap which is now a perfect crater almost on fire. Think you if he could see the wheat, corn, and grass, that is continually ascending from that heap, he would continue the fire? Far from it. He can smell at a great distance, the ammonia and enriching gases, arising of course. Now, if, as I have said, we could *see* the enriching gases arise, and knew their value, the world would have been convinced long ago; for "to see is to believe."

Well, I hear you say, what a destruction. Not so; not a particle is destroyed; it floats off in the air over your farm, and any farm, ready to be brought into the harness by the skillful farmer, who has his *clover* and other ammonia-absorbing plants in his broad fields ready to catch and devour it. I hold that air above, is and has been for all time charged with all the organic properties of plants, and that it is a fountain that will never fail, ever ready to respond to the demands of science. Yet, we must of course properly cultivate the soil. I believe fully in Tull's theory. If I had the means of retaining all the ammonia and invisible nourishment for plants that is foolishly expelled from my neighbor's farm, I am satisfied that I should have the lion's share.

See that your corn fields are clear of grass and weeds, for corn will not grow well with them.

The Mange.—This disease I am told, is much more troublesome with hogs in the Southern States, than it is in the North; when once a sty becomes infested with it, it is almost impossible to eradicate it; yet by repeated applications of lime wash, it can be done. The best preventives that I have knowledge of, and those that I have for years applied with success, are, in the first place, to have a board floor in the sleeping apartment of their sty, then a moderate supply of wheat straw well strewn over with ashes, at least twice a week, being careful to remove all of the old bed on applying the new. I also use all of the soap-suds made from the washing of clothes, &c., in mixing their food. If they are inclined to mange, I use freely of sulphur in their feed.

Hogs are frequently annoyed by what is commonly called *kidney worms*—when this is the case, they devour their food eagerly; yet remain lank or poor. For that I use copperas pulverized and mixed with their food, say a teaspoonful daily to each animal for a week, or even more, unless his condition is bettered.

Shelter Your Manure.—"In the preparation of farm yard dung," says Nesbitt, "there are two or three points worthy to be observed. The first is that many of these substances are soluble. Now the common way of preparing farmyard dung every body is acquainted with; a large mass of straw and excrement is allowed to rot in the midst of a quantity of water, when instead of a genial heat being produced, it is washed by the water, which, saturated with soluble matter is allowed to run away, as if the cleaner the straw, the better the manure. Now it so happens that every one of these substances carried away, is the most valuable; in fact, only the insoluble and most worthless are left behind. A quantity of dung thus exposed, will lose its potash, its soda, the greater part of its ammonia, and its soluble salts of lime, all of which with very little care, could have been preserved to the great advantage and profit of the farmer."

"He that by the plough would thrive
Himself must either lead or drive."

Poultry Dung.—Have this regularly swept up every Saturday, packed away in barrels, and sprinkled over with plaster. Dana, with force and truth, says: "The strongest of all manures is found in the droppings of the poultry yard." Next year each barrel of it will manure half an acre of land; save it, then, and add to the productive energies of your soil. Don't look upon it as too trifling a matter for your attention; but recollect that the globe itself is an aggregate of small matters.

◆

Although in draining land thoroughly, your purse may be drained, yet the full crops that follow, will soon fill it up again.

☞ The following correction was received too late to be inserted in its proper place.—Ed.

Dr. Tompkins: Please correct the following typographical errors which appear in the publication of my article in the last number of the Farmer's Journal. Page 51, first column, 6th line from top—for bushels read barrels. 12th line for reciporate, read recuperate. 15th line for gains read gave. Second column, 8th line, more, read none—14th line, restored, read hastened—page 52, first column, 13th line, sulphate in iron, read sulphate of iron—access read excess—connected read corrected—sulphur read sulphuric acid—steroid read sterile.

BEAUFORT.

No Family should be without them.—We speak of M'Lane's Liver Pills, which have become an indispensable Family Medicine. The frightful symptoms which arise from a diseased Liver manifest themselves, more or less, in every family: dyspepsia, sick headache, obstruction of the menses, ague and fever, pains in the side, with dry, hacking cough, are all the results of hepatic derangement, and for these Dr. M'Lane's Pills are a sovereign remedy. They have never been known to fail, and they should be kept at all times by families.

Directions.—Take two or three going to bed, every second or third night. If they do not purge two or three times by next morning, take one or two more. A slight breakfast should invariably follow their use.

The Liver Pill may also be uesed where purging is simply necessary. As an anti-bilious purgative, they are inferior to none. And in doses of two or three, they give astonishing relief to sick headache; also in slight derangements of the stomach.

☞ Purchasers will be careful to ask for *Dr. M'Lane's Celebrated Liver Pills*, and take none else. There are other pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills, also his celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by P. F. PESCUD, Raleigh, N. C.

◆

M'Lane's Worm Specific.—The following, from a customer, shows the demand which this great medicine has created wherever it has been introduced:

Blossburg, Tioga Co., Pa., March 30, 1850.

Gentlemen—In consequence of *the great consumption* of your "Worm Specific" in this place and vicinity, we have entirely exhausted our stock. We should feel obliged by your forwarding, via Corning, N. Y. 20 dozen, with your bill, on the reception of which we will remit you the money.

From the wonderful effects of said "Specific" in this neighborhood, there could be sold annually a large quantity, if to be had, (wholesale and retail,) from some local agent. If you would compensate a person for trouble and expense of vending, I think I could make it to your advantage to do so.

Yours, respectfully,

WM. M. MALLORY.
Per W. E. Porter.

Messrs. J. Kidd & Co.

☞ Purchasers will please be careful to ask for *Dr. McLane's Celebrated Vermifuge*, and take none else. All other Vermifuges, in comparison, are worthless. Dr. McLane's genuine Vermifuge, also his celebrated Liver Pills, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by P. F. PESCUD, Raleigh, N. C.

DeBURG'S No. 1.

SUPER PHOSPHATE OF LIME.

THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity, from one Bag to any number of Tons. Price, when one ton and over is taken, $45,00 per 2,000 lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

BORUM & FISHER,
Sole Agents,
Norfolk, Va.

C. LUTTERLOH,
NURSERYMAN AND FLORIST,
Fayetteville, N. C.

HAS Just received a large lot of Hardy Evergreens, Ornamental Trees, Roses, Shrubs, Raspberries, Strawberries, Bulbs, Grapevines, Green-house plants, Fruit Trees, &c.

Persons desirous of ornamenting their grounds and gardens, will find his stock very select.

The Chili Pine, Cryptomeria, Deodar Cedar, Cedar of Lebanon, &c , standing at the head of the Evergreens.—The celebrated Giant of the Battles, Cloth of Gold, &c., among the Catalogue of Roses, will be supplied to applicants.

Orders will receive prompt attention.

P. S.—Plants can be sent to Wilmington by Steamboat for persons near all the Railroads.

Febuary, 1854. 10—tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance; six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

For analysis of soils,	$5 00
Writing out analysis,	5 00

JOHN F. TOMPKINS, M. D.

A CARD.

JAMES M. TOWLES, General Agent for the sale of Agricultural Implements, and Farming Utensils, &c.

N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

WM. ALLSTON GOURDIN,
Factor and Commission Merchant,

NO. 73 EAST-BAY,
CHARLESTON, S. C.,

IS prepared to make liberal advances on Consignments of Rice, Cotton, Corn, Sugar, Flour, Grain, Hay, &c. Agent for "Genuine Peruvian Guano" for the States of South Carolina, North Carolina, Georgia, Alabama and Tennessee. Also, Agent for Baltimore and Southern Packet Co 's Steam-ships.

November, 1853. 8---

WM. H. TAPPEY. WM. C. LUMSDEN.

TAPPEY & LUMSDEN,
Iron and Brass Founders and Machinists,

Opposite Jarratt's Tavern and Southern Railroad Depot,
PETERSBURG, VA.

(Cash paid for old Copper and Brass.)

RAILROAD CARS, Axles, Wheels Self-Oiling Boxes, &c.; Tobacco Presses, Mills, Cotton Ploughs, and Knives; Cast and Wrought Railing; Steam Engines, Vertical and Circular Saw Mills, Grist Mill Irons of every description, Shafting and all kinds of Machinery, Wagon Boxes, Bells, &c., &c.

November, 1853. 8---

NEW COTTON GIN!!!

Superior to any now in use.

THE inventor of the new Cotton Gin, known as "S. R. Parkhurst's Patent Cylinder Gin," after having spent three years, and a vast amount of money has succeeded in perfecting the Gin, so that it can now be offered to the public, with full confidence in its superiority over every machine for cleaning cotton from the seed.

The great value of this machine consists in this; that it leaves the cotton open and free, does not cut or break the staple, but rolls it off the seed in its natural state *making* the lint with from *one to two cents per pound* more for the manufacturer, *by actually bringing* that advance in market The machine will not saw or cut the hand of the operator, and will not catch a stalk, stone, nail, or any hard substance, but throw them out with the seed. The company who own the right for making and selling this Gin for the State of North Carolina, are now manufacturing a large number and are prepared to fill all orders, giving a full guarantee the Gin *will do good service, both in quantity* and quality.

The Gins will be delivered at the Depot nearest the purchaser, and will be set up between this and the next ginning season, *to be paid for when tested, provided they give satisfaction.*

Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

SAMUEL R. BORUM. HENRY W. FISHER.

FARMER'S HEAD QUARTERS.

BORUM & FISHER, DEALERS IN BAR AND Bundle Iron of every description, for Farming and Manufacturing purposes. Horse Shoes, Nail Rods, Cut and Wrought Nails and Spikes, &c. Manufacturers of Agricultural Implements and Farming Tools generally, Horse Powers, Threshing Machines, Bamborough's and other celebrated Wheat and Corn Fans, always on hand. Also, Fresh Garden and Field Seeds. Our Catalogue and Almanac is published the first of each year, and may be had gratis, at our New Agricultural and Iron Depot and Seed Store, 11, Water Street, Norfolk, Va.

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JOHN F. TOMPKINS, M. D., Editor. **Wm. D. COOKE & Co.**, Proprietors.

Miscellaneous.

VALUE OF DEEP TILLAGE AND DRAINING.

BY W. W. WRIGHT, OF OBELIN, OHIO.

FRIEND BROWN: This evening, while looking over your truly valuable paper, and observing its interesting correspondence, I was reminded of the partial promise I made you when last we met, to give you some little account of my ways and doings.

Well, as my acres are not so numerous as those of some of your correspondents, I am endeavoring to get *as much land to the acre* as possible. My title runs pretty deep, so if there is anything valuable beneath the mere surface, I am bound to it. My intention is, *to double the amount of my land, without enlarging my farm.*

I expect to save, in the first place, the taxes on an equal amount of land. Also, I have no time for unnecessary steps; so if I can get one acre beneath another, I shall save something in this line; I shall save *half the time* in going to and returning from my labor. My crops will be twice as near my barn and cellar, and in turn, my enriching materials will be as much nearer my land.

Again, my fences will cost but half what they otherwise would. The saving here *is not a mere trifle.*

When the soil has been a few times THOROUGHLY TILLED AND ENRICHED, *twice or thrice the usual depth*, it will require no more time to till an acre, and yet *twice the amount* of produce may be relied on. Here will be saved, in the first place, the time and labor of tilling an acre of land.

Again, if the produce is doubled, the *profits will be vastly more than doubled*, and the pleasure of toil will be increased in the same ratio. For example; if a man sows an acre of ground and spends five dollars in preparing the land, buying the seed, and putting in the same and three dollars in harvesting and preparing for market, and gets ten dollars worth of produce, he must pay the remaining two dollars for the rent of his land. He has here only earned *days' wages.*

Now suppose he had spent thirty dollars, the then value of his acre of land, in doubling or trebling the depth of his soil, and enriching the same, he then has to add to the annual cost of tillage the annual interest of thirty dollars thus expended—say two dollars. Now if he gets double the produce from an acre, he then gets not merely his *days' wages*, seed and rent, together with the additional two dollars interest, but makes a *clear profit of eight dollars an acre;* the produce now being twenty dollars. To be sure it would cost a trifle more to harvest and fit for market the latter crop, but this trifle would be more than compensated in the pleasure derived from this kind of tillage.

Or, if we vary the yield of the first acre from ten to fifteen dollars' worth, the soil that was rich enough to produce this difference, would be equally benefited by the thorough tillage spoken of above. If the yield be represented by fifteen the profits would be five, and that of the *thoroughly tilled* would be eighteen to the acre.

Or, if twenty dollars' worth be obtained from the acre in the first situation, the profit would be ten dollars, and the profit of the deeply tilled would be twenty dollars an acre.

Again, a clay soil that is tilled twice or thrice the usual depth, may be wrought *twice as many days in a year*, and will be vastly more pleasant to till. Again, such a soil will be several degrees warmer than it would be if a large proportion of the water evaporated from the surface. Evaporation either dissipates the heat, or, what seems more probable, causes it to combine with some other element, so that its sensible effect, heat, is neutralized. Almost any farmers' boy knows that he can keep a jug of water cool, under the hottest sun of harvest, if he but takes the precaution to keep his jug bound in a wet cloth so that evaporation shall be rapid.

There is also another cause which contributes to raise the temperature of a deep open soil. I refer to the heat that is brought down in showers of warm rain. Who has not been surprised at the effect of showers of warm rain in melting snow or ice. Heat seems to be tending upward. It descends only when compelled, as in the case of falling rain. Now if the soil is not deep and open the heat of descending showers is lost.

Again, the loss of heat is by no means the only great loss sustained in these circumstances. The rain and snow bring down various gaseous elements which have been absorbed by them in the air, or have entered into combination with them. Some of the most valuable elements of decaying vegetable and animal substances are taken up in a gaseous form, and thus held by or combined with the air and the moisture.—This seems to be a *heaven appointed method* of counteracting the shiftlessness and wastefulness of this and past generations. For the time will come when every *particle of matter in earth, air, and sea,* that can be converted into substance for human beings, *will be demanded to supply wants of our rapidly increasing race.* Most of these ascending gases are obnoxious to our nasal organs, and are *generally so in proportion to their value as enriching materials.* The decomposition of those bodies most highly charged with nitrogen, such as hail, wool, leather, &c., by fire, is very offensive. This seems to be to warn men that a great waste is being made.

There is no cereal that has a greater proportion of nitrogen than beans. The water in which beans have been partially decomposed, by boiling is exceedingly offensive. Nature seems to *cry out* against this waste.

But to return, I design, and I think it was the design of Providence, that all the water that falls should go through the soil. A French Chemist has been engaged in analyzing rain water. He reports that enriching elements, equal to a moderate dressing of Peruvian Guano are contained in twenty four inches of rain. Now we have about forty inches a year. If one half of the water runs off from the surface, we have sustained a great loss from this source, and also another, from its having washed away *much that is valuable in the soil.*

It is poor policy to throw even clay lands up into rolling beds. To be sure it is the last of two evils—the standing of water or the wasting of the soil. I do not object to ditches, whether covered or uncovered, to carry off the surplus water, when it has *passed through* the soil. Yet I prefer to cover the ditches, because over them you reap your most abundant harvest, while in the others some of your soil is going "the way of all the earth."

Again, I want the air to circulate through the soil to twice or thrice the usual depth. Why is it that frequent stirring of the soil has such magic power to produce great crops? I answer it is mainly because it affords facilities for atmospheric contact. The air seems to be a powerful agent, assisting in the various changes required in the soil to prepare food for plants. You may take poor, lean earth from the bottom of a well, and expose it to the action of the air, frost, and rain. At first there is not vitality enough to give life to the feeblest plant. But in a few months, though it be not cultivated, vegetation will start forth. Whence has it derived this power? I answer, from the action of these elements. It is barely possible that light, though it does not penetrate far into the soil, has some agency in producing these decompositions.

The above are some of the considerations that have prompted me in deep tillage. Of the mode of this tillage I will speak hereafter.—*Farms. Journal.*

CULTIVATION OF THE PEAR TREE.

The principal reasons deduced by the orchardist for neglecting or refusing to plant as many pear trees as will bear some proportion to the number of his apples, peach and other trees, are that the first cost of the pear tree is generally more than double that of the apple; it is longer in coming into bearing; it is more liable to loaf or sap blight, &c. These objections may look formidable, but they are not insurmountable.

It is true that the cost at the nursery of 100 pear trees, is more than that of 200 apple trees; and this must continue to be so, for the expense of raising pear trees for a suitable size for market is much the greater; but when planted in the orchard they require no more attention than other fruit trees; in order to make them do their best, they require cultivation and attention far beyond what is usually extended to them.

A well cultivated pear tree is as prolific as an apple tree of the same size, and the fruit always sells at more than double the price of apples, so that the cultivator gets full return for his extra outlay for his pear tree.

It may be said that pears will not bear transportation equally well with apples; but it will be recollected that most varieties of pears improve by being gathered before they are quite ripe and allowed to ripen off the tree; if this course is pursued, the objection fails.

A very popular method of cultivating the pear is by working it upon the Angers' quince stock; by this means the tree is dwarfed and thrown into bearing at an early age.

Some varieties succeed better on the quince than on the pear stock, while others refuse to grow upon the quince unless they are double worked; that is first work a free growing variety upon the quince, then the refractory one upon the free growing pear.

Many persons appear to mistake the term "Dwarf Pear," thinking small fruit is what is meant. It is not the fruit, but the tree that is dwarf.

The best stock for dwarfing the pear is the Angers' quince. The apple is made dwarf by being worked upon the Cerasus Mahaleb.

For the orchard we prefer to grow the pear on its own stock, but for gardens and small enclosures we would select the best varieties that are known to succeed well upon the quince, and grow them as dwarfs.

Varieties of the pear that are late in producing fruit when worked on pear stocks, may be brought into early bearing by judicious pruning and pinching.

If the tree is permitted to branch, say three feet from the ground, and pruned into a pyramid form, leaving the lower branches the longest, and cutting back those above, it will not only bring the tree into a handsome shape, but the pruning that it gets to keep it in this shape tends to throw it into bearing. Pinching the ends of the growing branches the last of August or first of September, so as to stop the growth and ripen the wood, will cause the formation of fruit buds.—*Farmers' Companion.*

HOW TO RAISE SWEET POTATOES.

Joseph Mock, of Columbus, Ohio, had at the Dayton State Fair a lot of as fine sweet potatoes as we ever saw grown. He has just written us how he manages them. He says:

I have experimented with sweet potatoes for eighteen years, and for the past five I have raised annually from four to seven hundred bushels. I plant in hills. When I commenced, some advised me to cut all the vines off as soon as they reached down to the bottom of the hill; others said cover them up; and others said that the vines must be kept loose from the ground. I tried all these plans, and had my labor for my pains; so I let nature have her own way.

The best way I have discovered to secure a good crop is—1st. Be sure your seed is of a good kind. 2d. That the ground is in order—this is very necessary. My plan is this: I plow a piece of sward ground early in the fall; in the spring of the year when the ground becomes sufficiently dry, I cross-plow, harrow, and roll, until it is in good order for making hills. I then run furrows three feet apart, each way, or, take a common plow and make ridges; then with a shovel plow across the ridges, making hills. In this way I can make 1,500 to 2,000 hills in a day.

The best time for planting is from the middle of May to the 1st of June. I have planted as late as July, and had a tolerably good crop.

My method is to plant, if I can, just before a rain; if there is no prospect of rain, as I plant the sprout, I make a hollow around it, sufficiently large to hold a half pint of water, which I fill for a few days, and which enables the plants to grow in very dry weather.

In preparing the ground for the second year, in the winter or spring, I cover it two inches thick with dry straw. When I am ready to plant I plow the ground very shallow, harrow and roll, then cross-plow some inches deeper than the first time, and so continue until the ground is in good order. By this method the same ground may be cropped for several years in succession.

Weeds should never be permitted to grow.

I always keep my potatoes pure, and have a great demand every year for seed. I have now for sale over fifty bushels, which I would be glad to dispose of to any who want to raise sweet potatoes. Or, I will sell sprouts any time through May or June. My residence is four miles north of Columbus. Orders by mail sent to the Columbus Post Office will secure attention.

JOSEPH MOCK.

SOWING CLOVER SEED.

Eds. Rural:—On the score of profit, if for no other reason, it is important that all our improved land should be in grass, when not occupied with other crops, or in preparation for a crop. In most cases it will well pay to seed clover with every crop of small grain, even if the land is to be entirely devoted to raising grain. The pasture afforded in the interval between one crop and another, will pay the expense of seeding and the plaster that is necessary to put on, leaving the fertilizing matter contanied in the grass and roots to be plowed in, a clear gain. This is not all, it will prevent the growth and propagation of weeds, which it would take much after labor to exterminate. Farmers generally are not particular enough upon this point; they leave too much land unoccupied and unproductive, when it should be storing up the elements of fertility for succeeding crops. There is no doubt but that much more land would be annually seeded to clover if it were not that so much seed fail to come up, or the young plant so often destroyed by what are termed unfavorable seasons. But these failures ought not to prevent any from sowing the seed—it should direct attention to the cause of those failures, that a successful effort might be made to prevent them in future. There may be some little risk in sowing clover seed late in the season, with spring grain, but when it is sown early, either with spring grain or on wheat, it is as sure as any other crop, provided the soil is good, and has been made deep, dry, and fine. At least such has been the case with me, on a clayey soil, having never lost a crop when the land was in proper condition, and the seed sown at the proper time.

Clover seed should always be sown on wheat as early as the month of March, and then, or soon after, have a top dressing of plaster, for both clover and wheat. Plaster, unless sown early, will not benefit the clover at the time when it most needs it, and it often injures wheat when sown late, by causing too rank a growth about the time the grain is coming into maturity.—When land is seeded to grass with spring grain, a roller should be passed over it after seeding In addition to late seeding there is another prevailing error, and that is sowing too little seed. When clover seed alone is used, eight quarts to the acre is little enough. My practice has been to sow eight or ten bushels of clover chaff (I prefer to raise my own seed and sow it in that way,) and four quarts of timothy seed to the acre. It is poor economy to leave one-half the land bare for want of seed, and the other half to produce coarse, rank grass that makes neither good pasture nor good hay. The question is often asked me, "How do you keep so much stock on so little land?" Here, then, is the answer. The land is always in grass when not occupied with grain crops or in the preparation for the same. Grass improves the land, aside from furnishing food for stock. Stock makes manure, and manure makes grass and grain. This keeps both stock and land in good condition. If the course here recommended was generally practiced by western farmers, their lands would be more productive and profitable, and, in my opinion, it would be a long time before they would have to resort to artificial manures to keep up the fertility of the soil.

—*Rural New Yorker.* LINUS CONE.

There is much in the above article which is true, but the writer seems to forget that the very plaster he recommends is a special manure, and in many soils others might be added with equal propriety.—Ed.

SMUT IN WHEAT.

Mr. Editor: In looking over the columns of the Southern Planter, I read with pleasure the very interesting letter of Mr. Thomas Meaux on the subject of smut; and as he requested that farmers should compare notes on this subject, in order to benefit their brother-farmers, in coming to some effective means to eradicate this prevailing evil, I have concluded to give you the result of my experiments on wheat in the fall of 1852. In September I selected four bushels of wheat, and cleaned it thoroughly for the purpose of making the following experiments:

Lot No. 1. One bushel of wheat sowed without either brining or liming, with one hundred and fifty pounds of Peruvian guano to the acre. They yield, thirteen bushels, had the smut very bad.

Lot No. 2. One bushel, brined limed, and sowed with one hundred and fifty pounds of Peruvian guano. Yield, fifteen bushels per acre. This lot had some little smut, but nothing like as bad as No. 1, which I think lost two bushels in smut.

Lot No. 3. One bushel brined, but not limed, and sowed with one hundred and fifty pounds of Peruvian guano. Yield, ten bushels. About one-third of this lot was smut.

Lot No. 4. One bushel washed in clear spring water, and then limed, sowed with one hundred and fifty pounds of guano. Yield, eighteen bushels. This lot did not have the smut at all.

On all these lots the wheat was the same: the growth equally as vigorous on them all.

The result of my experiments is, as will be seen, in favor of the lime. The spring water was only used to wet the grains in order to make the lime adhere to them. I think that if farmers would take more pains in getting out their seed wheat, viz: thresh it out with a slow pressure, clean it well, and spread it over their barn floor thinly, and then sow lime over the floor, stir it up together and let it remain there until seeding time: then wash in clear spring water, lime it, and sow when the ground is in good order, they will be able to get clear of the smut.

With my best wishes for your success in improving Virginia agriculture.

GEO. H. NORTHAM.

Woodbine, Westmoreland, Nov. 8, 1853.

SOUTHERN FARMING.

Messrs. Editors: I am deeply interested in the subject of agriculture, and read your monthly issues with great satisfaction, and I trust, with some improvement to myself. Strange as it may seem to you, I am endeavoring to carry out, practically, an entirely new idea in this community, "that it pays to make manure and haul it out!" I say practically, for though many may agree with me theoretically, I find not one who makes it the business of any portion of the year, and may have been the predictions of failure that I have had cast upon me.

It has been my good fortune to be raised in a community that has passed through the incipient stages of manuring, and, where it is no longer a theoretical opinion "that manuring pays;" but where the practice of years has put it beyond all controversy, and every day's experience proves it more thoroughly. Therefore, in my remarks, Messrs. Editors, I do not cast the slightest imputations upon my brother farmers of Abbeville, and the up-country generally, for not agreeing with me entirely. But if one single friend can be persuaded, by what I say to try "thoroughly" the plans I may propose, I shall be content.

I moved up to my present home, about two years ago, and settled upon a place that had the reputation of being thin land. However, I did not take the step which long and earnest thought and the motives which prompted me, I will give at some future time. In traveling through the up-country, and watching, year after year, their systems of cultivation—that exhausting process pursued by the farmers generally; when I saw a field that had already been in cultivation for many years, again plowed for cultivation; when I saw a cotton crop taken from it this year, a corn crop the next, and probably some small grain sowed down on the very same land the third year, and reflected that it was not an exceptionable thing, but that it was going on throughout this section; my mind turned away with painful forebodings, and I pitied the generous earth, that would still produce something for its inhuman owner, without one single return to it for its yield. Methought I could hear it cry aloud, like the poor ass of Balaam, under the undeserved strokes of its master, "year after year I have sustained thee without a murmur year after year have I given thee everything that I had hidden in my bosom, and not one particle of food have I had in return! Not one year of rest have I been allowed, or if I was thrown out from cultivation, instead of allowing me time to recover my almost exhausted energies, from the natural agencies that a kind heaven had placed in my power—instead of allowing me to feed upon the weeds that would have grown up, and you may have turned under for my use, even this you have denied me! You have made me a "common pasture!" The cattle have roamed at large over my acres and have cropped down every weed that appeared! Oh! owner, have pity upon your poor field and give it food! Food I must have, no less than the horse or mule that draws the plow! What would you think of the man that thus used his animals? Would they repay him? Could they thus work, year after year, without food? I too, must be fed. My food is as necessary as theirs, and without it, I must fail!"

Soil of the South.

CHEMISTRY FOR FARMER'S BOYS.

As taught in the Royal Agricultural College, Cirencester, England.

Men, as well as boys, can study the following instructive article with profit. It contains a world of information.

1. What inorganic matters enter into the composition of the ashes of our cultivated plants?

2. Mention the general character of stiff clay soils, and describe the means of improving them?

3. Under what circumstances are paring and burning likely to be attended with good results, and in what cases will it do harm instead of good?

4. What changes farm-yard manure undergo in keeping?

5. Mention some of the principles which ought to guide the farmer in the management of home-made manure?

6. What are the best means of preventing the loss of ammonia in dung-heaps?

7. On what constituents of artificial manures do their fertilizing and commercial value depend?

8. What are the adulterations more generally occurring in Peruvian Guano, and how can they be detected?

ANSWERS.

1. The inorganic matters found in plants are the following: Potash, soda, silicia, acid, lime, sulphuric acid, (manganese occurs in bark of trees,) carbonic acid, iron, chlorine, phosphoric acid.

2. Any soil containing more than fifty per cent. of alumina, is called a clay. They are tenacious, cold and wet, naturally and usually unfertile: but by improvements yield a continuous return of considerable value, and possess a less tendency to exhaustion than other kinds of soil. The other general characters will be touched

upon in speaking of the improvements, which are the following—draining, subsoiling, burning, liming, mixing, plowing, rough-digging, fallowing, and long dung. Draining stands first: this arises from the natural character of the soil: it is stiff, imperious, and possessed of great powers of retaining moisture. By draining, the excess of moisture, which naturally accumulates in the subsoil, is drawn away, and the air naturally follows the water; cracks and fissures are formed, the carbonic acid of the water and air, its oxygen, and all climatal influences are thus brought into play. The soil is thus rendered friable, its chemical constituents become altered and broken down, forming new compounds serviceable for plants; their roots strike deeper into the soil in search of food, and fertility is brought about and developed. Sometimes too matters of a deleterious nature are removed by drains, and the clay, by having its water removed, has a tendency to absorb gases. Subsoiling has generally had recourse to where the subsoil differs in character to the clay, and even if not, does good by causing an extra amount of exposure of the soil to the atmospheric influences. Burning acts by altering the physical character of the clay, by liberating the potash, and causing a tendency to greater absorption of ammonia. Liming alters the soil physically, and assists after burning, in liberating the potash. Mixing may create a physical change, and at the same time the substance applied may itself possess substances useful as food for plants. Plowing acts by exposing the soil to the atmospheric influences; rough-digging, similarly; fallowing, in extended degree, by both; it also destroys weeds, insects, &c. Long dung renders clay porous, admits air, frost, &c., into clay soils.

3. Paring and burning are attended with good results, when combinations of potash exist in the soil, as with salicia, &c., where organic matters are in excess, as peaty soil, when they alter its physical character; and when the soil is especially foul, and overrun by insects. If the soil be a light sand, instead of clay; if it be clean; if a soil does not require any physical change, so as to lighten it; if no potash combinations occur; if it be deficient in vegetable matter, then burning and paring are not good.

4. Farm-yard manure, by keeping, putrifies; sulphate of ammonia and ammonia are driven off; potash is carried away by the drainage, which is generally imperfect; the organic matter is reduced; carbonic acid and phosphuretted hydrogen are given off, and the mineral matter is more concentrated. It was considered by Liebig that well rotted manure owed its extra fertilizing effects to this excess of mineral matters—a matter doubted by some. The remaining matters are more soluble.

5. The principle ought to be kept up in all fertilizing substances, to procure the manure in the most concentrated form (unless requiring for clay, or where a mechanical action is required,) and as free of water as possible, and, by compression, to exclude the air. By box feeding, compression, exclusion of the air, keeping out rain, keeping up regular fermentation prevention of sweeping winds, no less by liquid matters, flowing away of alkalies, &c., and a more intimate mixture of the dung and urine with the straw takes place. When the manure is produced, the heap should be made large—wide at the base and narrow at the top; it should be compressed, drainage furnished at the base, and liquid collected in a tank, and either used as such, or again pumped over the heap. The preserving of ammonia will be touched upon in the next question.

6. Common methods of retaining ammonia: 1st. Road-scrapings, charcoal, clay-burnt, unburnt sawdust, and peat soil. These act by their powers of absorbing ammonia, by keeping out and keeping up regular fermentation. 2d. Sulphate of iron, sulphate of magnesia, sulphate of lime, chloride of sodium. Sulphate of iron acts as a fixer by free sulphate of ammonia, as a deodorizer, by forming sulphuret of iron with the sulphuretted hydrogen given off. Sulphate of magnesia acts by forming a double salt of magnesia and ammonia, and by uniting with phosphoric acid. Sulphate of lime is considered to form sulphate of ammonia and carbonate of lime. It only does this when soluble, to which state it is not easily reduced, and reverts again to carbonate of ammonia; it may unite with the

phosphoric acid. Chloride of sodium acts by stopping fermentation. Acid fixes—sulphuric and muriatic acids act by entering into combination with ammonia; the latter, as it may be procured cheap near soda manufactories, is the cheapest and quite as effectual.

7. Artificial manures owe their fertilizing effects to ammonia, which they contain, and to phosphoric acid and potash. The value, of course, depends upon the quantity of these matters they contain; they possess little physical action.

8. Peruvian guano adulterations used are sand, loam, quicklime, and gypsum. To detect the first, burn and dissolve in muriatic acid; if more than one per cent, of silica remains, sand has been used. For the loam; if the ash is colored red, loam has been used. For quicklime; after dissolving the ash in muriatic acid, separate silica and precipitate alumina and iron, should it be present; to the filtrate add oxalate of ammonia, if more than a trace of lime is precipitated; lime has been used to adulterate. Gypsum may be indirectly detected, by a precipitate of chloride of barium.—*The Plow.*

EFFECT OF DRAINING—DEEP PLOUGHING—AND MIXING OF SOILS.

Johnston says, "that the Marquis of Tweeddale, in his home farm of Yesters, has raised his land in value *eight times* (from 5s. to 40s. per acre,) by draining and deep ploughing. After draining, the fields of stiff clay, with streaks of sand in the subsoil, are turned over to the depth of 12 or 14 inches, by two ploughs (two horses each,) following one another, the under six inches being thrown on the top. In this state it is left to the winter's frost, when it falls to a yellow marly looking soil. It is now ploughed again to a depth of nine or ten inches, by which half the original soil is brought again to the surface. By a cross-ploughing this is mixed with the new soil, after which the field is prepared in the usual way for turnips. But it is observed, that, if the ploughing has been so late that the subsoil has not had a proper exposure to the winter's cold, the land on such spots does not for many years equal that which was earlier ploughed. The reason is, that when once mixed up with the other soil, the air has no longer the same easy access into its pores."

It would seem evident from the preceeding successful experiment, that, in all stiff clayey soils, *draining should always precede deep ploughing.* Many stiff clays, which to the eye, do not appear wet, are in reality so surcharged with water, as to render them injurious to healthy vegetation; but which after being effectually drained, not only increase the quantity of their produce, but improve the quality also. Stiff clays, after being drained, should be permitted to remain sufficiently long to relieve themselves of their superabundance of water before very deep ploughing is tried upon them. The first year it would possibly be most prudent, to only plough so deep as would increase the depth of the surface soil some two inches. After the first year, it would not only be perfectly safe to plough eight or ten inches in depth, but to subsoil some six inches more. When these latter depths shall have been reached, we think there can be no question but that cross-ploughing two-thirds the depth would prove to be a valuable auxiliary to the intended improvement of the soil. At this cross ploughing we would apply the manure.

Those who have been in the habit, when ploughing their land, to merely skin and scratch it some two, three, or four inches deep, will, of course, enter their protests against such deep ploughing, and utterly reject the idea of cross-ploughing; but in despite of the dissent of such persons, we unhesitatingly say, that such preparation of the soil will pay—aye, pay well.

Each ploughing should be followed by thorough harrowing and rolling, so as to reduce the soil to the finest state of division, as the more perfect the pulverization, the freer will be the access of the oxgen of the air, and the greater and more beneficial will be its action in the work of melioration upon the soil and plants growing therein. Without copious supplies of pure air, animal life cannot prosper, neither can that of the cultivated crops.—*American Farmer.*

Strive to excell in agriculture.

MORGAN HORSES.

Mr. Jewett, the most reliable authority on such matters, thus speaks of the Morgan horse:

"I believe the Morgan blood to be the best that was ever infused into the 'Northern horse.' They are well known, and are esteemed for activity, throughout the New England States; well adapted for all work; good in every sport, except for racers on the turf. They are lively and spirited, lofty and elegant in their actions, carrying themselves gracefully in the harness.—They have size proportioned to height; bone clean, sinewy legs, compactness, short strong backs, powerful lungs, strength and endurance. A mixture of the Morgan blood, though small, may be easily known from any other stock in the country. There is a remarkable similarity prevailing in all this race. They are known by their short clean heads, wide across the face at the eyes; eyes lively and prominent; open and wide in the under jaws, large wind pipes, deep brisket, heavy and round in the body, broad in the back, short limbs in proportion to the size, broad quarters, a lively quick action, indomitable spirit, move true and easy in a good round trot, fast on the walk.—Color, dark bay, chestnut, brown, with dark flowing wavy mane and tail; about fifteen hands high; action powerful and spirited.

"They are highly celebrated for general usefulness, make the best roadsters, and live to a great age. In fact tney are the perfect 'Yankee harness horse.'

"The Morgans are very like the noble Arab, with similar eyes, upright ears, high withers, powerful quarters, hocks well under their weight, vigorous arms and flat legs, short from the knee to the pastern, close jointed, possessing immense power for their size, with great fire and courage. But few of the Morgans, however, evince extraordinary speed."

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To Prevent Potatoes from Rotting.—In a recent conversation with John C. McVean, of Scottsville, New York, he informed us, that last fall at the time of harvesting the potatoes, he put two heaps in the cellar, dusting one of the heaps with *quick lime* as they were thrown in from the wagon. The potatoes in this heap kept well, while those in the other, not limed, nearly all rotted. We have observed experiments recorded, giving like results.

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From the Southern Planter.

STUCCOING HOUSES.

Mr. Editor,—In a southern climate and damp location will stuccoing a twelve inch wall in a brick dwelling be a sufficient protection from dampness? Or is it better, with the stuccoing to have the inside furred and lathed before plastering? Information on the above point is desired for practical purposes by Aliquis.

The above question is answered in the following letter from one of the best builders and most reliable men we know:

Eastern View, Albemarle, April 2, 1854.

Frank: G. Ruffin, Esq.

Sir,—On the receipt of your note of the 29th ultimo, with the enclosed letter, I hasten to reply, requesting me to give you my opinion relative to the interrogatories sought for in said letter. This I will do with pleasure, and more cheerfully, from the fact that my long acquaintance, observation and interest, as a builder, has afforded me some practical knowledge in guarding against dampness in brick walls, &c. Therefore, I would advise all buildings below the ground (cellar walls) to be hollow drained by an exterior wall four inches, or half a brick thick, to be run all round the cellar walls, (outside of course,) leaving a hollow space between the exterior and cellar walls four inches wide, commencing from the foundation and to be closed at the surface of the ground with bricks, projecting over against the cellar walls. Then a drain, leading from said hollow *space*, to carry off any water that may rise in the cellar from long and continued rains, filling the earth wit water, notwithstanding this is the case sometimes. But if the water is carried off with drain as it may rise, the walls of the cellar will remain perfectly dry using this necessary and important precaution, not to suffer the water that falls on the roof of the building to be dashed or blown against the walls by wind, which the case if it is not conducted off as it falls the roof by suitable gutters and downfalls, with basins to catch the water, and then a gutter of wood or stone to take away from the wall, (ten or twelve feet, or more, *is best.*) Another very important item to be particularly attended to for the dryness, &c., of brick buildings, is, not to suffer the guttering of the roofs, &c., to get out of order, which is frequently the case during summer (from neglect) by birds' nests and leaves deposited by the wind, obstructing the passage of the water, causing the gutters to overflow and saturating the walls with rain. Whenever this happens the evaporation of the moisture is so gradual that it takes a long time for them to dry.

I have long since come to the conclusion that twelve inch walls, one brick and a half thick, are sufficient protection against moisture when the work is executed in a workmanlike manner and good materials used, and the guttering, &c., attended to as recommended. I have been the occupant of brick buildings for upward of fifty years, and never have been moistened or made uncomfortable by damp walls in the upper stories of buildings by the falling of rain blowing against the walls. Yet this may happen in long and heavy rains blowing from the same point; for instance, a northeaster, if the building is not guttered and spouted. I have lived at my present location for about seventeen years, where my buildings are all of brick, without ever dis covering any dampness in the walls above the ground, which have been always perfectly dry and comfortable; and somewhat remarkable to say, with a family, including white and black, of from thirty to thirty-five, not one has ever contracted a fever *here* of a protracted kind.—But I will come to the point of a stuccoed building, and close by remarking, stucco of *itself* is nearly impervious to water, which much depends on the *workmanship* and *materials*; for instance the sand entirely divested of all loam and trash, by washing; the lime *pure* and slaked in what is called a putty state, then mixed properly with the sand, made into a mortar and suffered to stand some time before using, say from five to six weeks. When the work is commenced, the stucco workman to use a plenty of elbow *grease*, by much *rubbing* or *floating* with a hand float, brush and water, which compresses all of the particles of lime and sand closely together, and will make them ultimately become nearly as hard as rock. Consequently, I think you may safely answer "Aliquis," he need not (although the location of his building is a damp one) apprehend any danger from walls, particularly as he designs stuccoing them.

Very respectfully, your obedient servant,

W. B. PHILLIPS.

Agricultural Societies.

AN ADDRESS,

Delivered before the Hertford County Agricultural Society, at Winton, May 4th 1854,

By Jesse J. Yeates.

Mr. President, and fellow members of the Hertford County Agricultural Society:

I should do injustice to myself, were I not to say that I feel highly honored in having received an invitation from your committee to address this truly enlightened and praiseworthy body; and, though it is with much pleasure that I attempt to-day to answer that very flattering call, nevertheless, it is with many misgivings and forebodings on my part lest I should fail to compensate you for your time and trouble.

Agriculture, in its practical effects, is so varied that one as little accustomed to ponder over it as I am, finds it difficult to make a speech on the subject; not because there is a want of subject-matter for a speech, but because, so numerous are the channels appertaining thereto, that it is difficult to decide which to enter and explore. Like a man standing for the first time on some new and magnificent confines, beholding broad rolling rivers on each and every side, that invite his exploring genius, he is at a loss to know on which to embark; for, if on this or that, who knows but that it is the one that may bear him on to the very goal of his ambition, or, perhaps, the one that will wreck his hopes in the eddying whirlpools and plunging waterfalls?

In every honorable pursuit of life, there is a true dignity connected with it—a dignity that wreathes its diadems for the deserving of all avocations. The man of science, in his laborious research for the deep and hidden things of nature, is readily distinguished from the enthusiastic dabbler of learning. The one, with the pure purpose of ennobling his race, plies himself with an assiduity that knows no defeat and an energy that storms the redoubts of difficulty; the other skims the surface of literature, is exceedingly inflated with a few ideas, and, with a pomposity that knows no modesty, very boldly throws himself upon the credulity of the people. But an enlightened public sentiment makes a crown of immortality for the one—the other receives the approbrium of the literary world. The true and patriotic statesman is readily distinguished from the demagogue. The demagogue, wherever found and in whatever station of life, wears not the nobleness of his profession. Stripped of his hypocritical garb, his naked deformities, whenever and wherever exposed, are loathed and execrated by gentlemen. However successful for a time he may be, his race is short, and justice, with one fell stroke, lets the cimeter, and the man is forgotten. But there is true fame and dignity for the statesman; and, should he never reach the acme of his hopes, he reaps the laurels of his fame. As with the "immortal trio," though they never obtained the highest gifts of office, yet their power when on earth was Godlike, and now for ages, you, and I, and Americans all, will point to them as colossal mental monuments—the result of American liberty. The soldier, whether dying upon his battle-shield or left a prey to prowling wolves, alike with the surviving victor, receives his glory—the one in death, the other with his name inscribed on the fluttering banners. Each and all receive the homage of grateful people. Point to any avocation of life, and, though you will find in all drones, yet I will in every instance show you the man that is crowned with success. And thus it is quite easy to contrast the unsuccessful farmer, and clothe the one in poverty and loathsome rags, the other in comfort, in happiness, and in wealth.

I have sometimes heard it avowed in theory, and often witnessed the practice of the strange and inconsistent usage, that farming would admit of less intelligence than the other pursuits of life. This is an error deep and wide, and fraught with consequences that strike palsied the very nature of the pursuit. It is true that men do sometimes succeed in raising a good "crop" with no acquirements and but little effort on their part. But they are, however, such men as follow the plans of others, and, not being willing at all times to admit it, by bringing in some peculiarity, they claim the whole as original. Now, I lay it down as a fundamental proposition, that no pursuit of life can, as a general thing, be carried on without *mind;* and, if it requires mind, of course it follows that the more mind is cultivated the more power and vigorous the mind will be—hence the ability to more successfully carry on the business of life. Why should not these facts be applied to farming? Is there no improvement to be made? The farmer has to study the soil; he has to understand its principles of action. Why? Because he has to depend upon the soil for support. Not only should he be conversant with the principles of his profession as far as appertain to the sciences of chemistry and geology, but the farmer who is not a reading man is certainly in danger of being behind the times.

Arouse from your lethargy! Surely, you have taken a long and deep sleep; but the blazing and brilliant sun of enterprise has loomed over the eastern hills and poured his quickening rays all over our fair and lovely State, and all is becoming action. Shall you, will you be found behind your neighbors? Will you remain still, as many are, riveted to the fashions and habits of olden times by the fettering chain of ignorant conceit, and live on only to see yourselves in the mere background of the painting? No. I cannot believe it. The organization of this society tells me not to believe it. The very meeting here to-day (though small it be) proclaims that our farmers are beginning to think for themselves, to act for themselves. And why should they not? If a man does not protect his profession, his profession will not protect him. Is not the farmer entitled to respect from all men? He visits the poor houses and builds up th charity annuities of the land. He feeds the hungry and clothes the naked. The lawyers, the doctors and the whole professional crew and officeholders in the land, from the constable to the president, he hides their nakedness, administers the milk that fattens them, and fills their purses. And the gay city belle, attired in her silks and satins, veiled in her blonds and tissue-gauzes, replendent in beauty and vieing in sparkling lustre a full star-lit night—though she may not appreciate the sweat that oozes from tho dusty temple of the honest farmer, yet is so dependent upon his honorable effort that, without it, her beauty would fade away and her magnificence become foul and loathsome. Agriculture opens the ports of navigation, unchokes deep flowing river, spreads the sails of commerce and supports the very bone and sinew of the world.

It has always been held in the highest estimation by the true and brave. Why should men look beyond their own profession for true worth? The young farmer, reared at the plow-handles and taught from his youth to respect honest toil, is a fit subject for honorable promotion.—Nerved to speedy action, steeled to hardships and trials wherever found as a physician or a jurist, in the cabinet or the field, he is always at his post and on duty. Go with me to the memorable and glorious days of "seventy-six," when the then most powerful nation in the world, in solemn parliament assembled, resolved to crush young America, just springing into being, and make mercenary vassals of our fathers and our mothers; when stout hearts quailed, and the Goddess of Freedom with drooping wings, was seen crouched in weeds in our mountain glens. We had no soldiery—no; but the farmers, yea, the farmers, hearing the wailing cry of their country for help, were seen with swords cut out of saws and molded from plow shares, and with other warlike implements, hurrying to the altar of their common country, bringing their offerings and their sacrifices. Not in splendid attire, not in glittering uniform, but in the plain habiliment of farmers, and, rallying around the heights of Bunker Hill, they rolled back the billowy surges of war, and the nation rejoiced at the chagrin and disappointment of England.

It would be useless in me to undertake to treat of the various systems of agriculture. Being no farmer myself, it would be the work of arrogance on my part to elaborate on those principles of farming which are learned and understood only by experiment and study. As to the best, quickest and cheapest modes of raising manures, draining lands, and the various practical appertenances of husbandry, these are questions for you in your stated meetings to deliverate on and determine. But mine is the theme of general agriculture. There is a rural felicity always lingering around my mind like a pleasant dream: it is the remembrace of childhood's happy hours, when, following the bent of a roving fancy, I have reveled in the delights of singing birds and odoriferous flowers. Were I gifted with the genius of an artist, and desired to paint the loveliest picture of art, it would not be one where lofty domes and towering steeples would be seen, nor grand and antique castles or ponderous, arching bridges; but upon the snow-white canvas I would first trace the neat but rural cottage, with grassy lawns and gushing fountains, whilst the background should be beautifully filled up with rolling meadows, where the faithful cow should feed aud the horse frolic and play, with fields of waving wheat and green, rustling corn, whilst, ever and anon, cherub heads of happy children should attract the beholder's eye to tell the tale of sunny curls and gaily hours.

Of all the professions of life, the farmer is the most peculiarly blessed. It is true that, as in all the other pursuits, his success is dependent on the mercies of heaven; for sometimes, the raging winds in their mad fury lay his plans low and make waste of his toil; and, at times, the heavens seem to lower in black and muddy clouds and stream in torrents of rain until the waters overflow every thing, and nature wears the appearance of deluge and destruction. It is true that often to the reverse, when green grows the corn, and all vegetation has the appearance of prosperity, that the clouds, refusing to give shade or rain, suddenly floating away, seem gone forever, whilst the sun, in sheathing breath, pours down its burning rays, and all that was green and luxuriant seem blasted and ruined.—And often the farmer gazes with anxious solicitude at a transient summer cloud that skirts the horizon, and when its vapors are dissipated and gone, and no refreshing shower falls to revive his hopes, sullen disappointment mantles his brow, and words of bitterness often fall from his lips. But a wise man cannot complain at the dispensations of God, for he sends his rain to the just and unjust: still, if you act your part well, blessings will come. The steady gale will bring on the refreshing shower, and vegetation will revive. But the educated farmer rises, in a measure, superior to these difficulties—for, understanding the beneficial results of rain and sunshine, he, as far as possible, supplies his soil with these principles, and thereby escapes the disadvantages those encounter who will not take the pains of learning.

Is it not the most ridiculous idea in the world that the farmer must be an illiterate man? or, because he is a farmer, then forsooth, there is no necessity of his being educated? I have witnessed with pain the operation of this strange and inconsistent practice of degrading the pursuit of agriculture by *a regular established usage of ignorance.* Have you ever seriously thought of the deleterious effect it produces upon your profession, ye farmers of Hertford county? Do you not know that mind does, will and always must triumph over matter? This is the reason that your sweat is not appreciated. The want of educated men has done your profession more injury than anything else. Men run into a great error: one more deadly than the stifling effects of an incubus—one that stills the pulse, paralizes the nerves, and saps the life blood of the farmer's pursuit—one that degrades the farmer and stigmatizes him with a mental and political inferiority and oppression, to suffer which is exceedingly repugnant to all the principles for which Washington and our fathers fought and cemented by their blood. If your son is pert and impudent, it is thought he is smart; him you will educate, for he is to be a lawyer, yea, a politician, perhaps a governor or a president, some of these days; or, if you have a son that is very knowing in matters far above his comprehension, you will make a doctor of him; and, after educating those for the "professions" whom you judge to be the most gifted some modest and retiring youth is left to be sacrificed on account of his modesty, by the common but ridiculous pretext that "he is dull, can't learn, and it would be useless to waste money on him, besides I only design him for a farmer." Oh! is it not a shame thus to crush the very buds of promise, and send off to toil and labor in that calling that is thus being degraded, and they forever unable to elevate it to that standard that it claims, and to which it is justly entitled? Friends, educate your children; it matters not what you design them to be, educate them. But, if you design them to be farmers, be sure to educate them, for then you will be elevating the standard of that profession which is the very life supporter of all the others.

The Republic of the United States is a vast and powerful nation. Stretching from the canvas-covered lakes of the North to the orange groves of Florida—her eastern coast dashes back the angry waves of the Atlantic, and Pacific's gentle billows die away on her western shores. She presents millions of acres in cultivation, and still millions where the foot of civilized man never trod. Consider for a moment how great and how important is the farming interest in America. The flag of our government waves over thirty millions of free people. In such a vast population, how varied and diversified must be the life pursuit of each, and yet the pursuit of agriculture is the one most generally followed, and by far the most important. We abundantly feed not only our own people, but scarcely a wave swells over Atlantic's bosom but bears some buoyant barque of America laden with our exports, and bound for the anxious ports of the world. Look back but a few years ago, when the potato crop failed in Ireland, and famine, like a ravinous demon, reigned supreme in every hamlet and village of that wretched land; when craving hunger and direful desolation swept the land with a more pestilential destruction than the simoon's poisonous blasts; when the Irish peasantry were seen crowded together in low and filthy huts, and men, women and children dying from actual starvation, proud, imperial Europe, arrogant and doubly enslaved in her potency, could not administer relief. Asia, with her swarms of human beings, could not, was not able to succor poor starving Ireland. But there is a land where peace and happiness dwell—a land where the Gillead, whose balm is precious and pure, spreads its luxuriant green leaves to the heavenly zephyr—the hearts of whose people, thrilling with the emotions of pity, filling their vessels with the necessaries of life, brought peace and comfort once more to the unhappy. That land is America. How grand and glorious her position!

But let me not forget that whilst I am speaking of the glory of our common country, I am also addressing the farmers of North Carolina, although but a few of that numerous class of citizens of that good "Old Commonwealth," yet a very respectable portion, and to you as much as to any, is intrusted the faithful protection and preservation of her fair fame. Then let us ask the question, Where stands North Carolina, when compared to the other States? It is true that I would like to say something of that State that gave me birth, when I remember the fact that no State in the Union has been so much abused, none so much ridiculed, and yet more deserving, I am frank to confess that my heart swells with filial emotion:

"Carolina! Carolina! heaven's blessings attend her,
Whilst we live, we will cherish, protect and defend her.'

Yes, I would, though it be in a feeble manner, defend her—defend her from the aspirations and calumnies of her traducers. The authors of our geographies have, as a general thing, treated of her as an unimportant State; and the youth of our land have it early impressed upon them that the chief products of the State are tar, pitch and turpentine. The historian, instead of being wooed by her fine, natural scenery, (unsurpassed by any State in the Union,) her lofty mountains, shadowy meads, and glassy streams, and speculating upon her really great and undevoloped resources, has passed her by with the cant of a perfumed coxcomb in search of his golden lass. The result is, that she does not sustain that high reputation abroad that every true-hearted son of the Old North State desires and claims for her. Still, it cannot be denied but that many States have taken the lead of her in the great improvements of the age. It is a lamentable fact, that for the want of proper system of farming, many of her fine and rich lands have been rendered nude and barren, and where once the rank corn and the rustling wheat gracefully waved their golden bows in healthful breezes, now lonely and desolately sigh the young pines as in thickets they are clustered with brambles and sedge grass. It cannot be denied but that the policy of the State heretofore has been such as to drive from her the coffers of wealth by shutting up the avenues of enterprise and industry. It is true, and lamentably true, that many of her most enterprising sons, not finding encouragement at home, and being attracted by the glowing descriptions of other and newer countries, have left their fathers' and mothers' graves and gone away to seek a fortune in strange lands, and now they stand as representatives of those countries, "enriching every State save that which gave them birth."

But notwithstanding all these disadvantages North Carolina is entitled to very great importance as a State of our Republic. Recent developments have placed her first in wealth in rank of mineral States. Her coal, iron, lead, copper, silver and gold, are all abundant. In minerals, compared to the United States, she is on an equality, with the exception of California—compared to the old "thirteen," she far excels them all. She has lands now that cannot be surpassed by any country. Cotton, corn, rice, potatoes, peas, hay and everything that is profitable to cultivate, can be raised here in the greatest abundance. Nature has peculiarly blessed North Carolina. There is not an acre of poor and worn out land in the State, but what nature has provided a remedy convenient and attainaable, by which it can be reclaimed, resuscitated and made productive. How then does North Carolina stand by comparison? Not behind all the States, nor yet what she should be.

'Tis people that make a State, and the character of a State is the character of the people.—"What," says one, "constitutes a State?"

"Not high raised battlements or labored mounds,
Thick wall or moated gate,
Not bays or broad armed ports,
Where laughing at the storm, rich navies ride.
"Not starr'd or spangled courts,
Where low-bound baseness wafts perfume to pride.
No! men, high-minded men,
* * * * * * *
Men who their duties know;
But know their rights, and knowing, dare mountains,
These constitutes a State."

It is *men* that we want—men of energy and enterprise, who, with the proper nerve, will openly meet and subdue the difficulty that science and improvement always encounter. The appeal is to you, farmers of Hertford county.—Have you not heard the wild notes of steam calling you to do your duty? Give us railroads and every improvement that will develope a State. Build up towns, rear school houses, renovate worn out lands, and flood the land with newspapers—newspapers of all good subjects; subscribe to them—read them—think and act for yourselves; then the good "old North State" will rise in her strength; she will shake off her fettered limbs the chains of poverty that ignorance has riveted and bound away free. Every stream, where now mountain cascades idly sport, will leap joyously away from the flatter wheels of industry. The vessels of commerce, instead of drooping her sails, will fly before the gale, and the scream of the engine arouse to action. Then will the undeveloped resources of the State come forth, and from her sea-beach to her now snow capped mountain tops, will be energy, enterprise and contentment—then we may expect for her absent sons to be returning, to gaze in moody dreams over the halcyon spots of youth—then, and not till then, will you and I dwell contented, willing to live where our fathers lived, in North Carolina, a State once and ever glorious, and sleep within her bosom.

THE HOG—A MANURE MAKER.

One of the best of manure makers is the *hog*. Every farmer is supposed to have one or more of these animal *manure makers*, and if he but take care to provide him with *material*, he will make double the worth in manure—of his own body in the market. The great value of the manure of the *hog* consists in the ammonia so abundant in it, supplied of course, mostly by the *urine* of the animal.

Now the urine of the hog is too often suffered to run to waste. To save this, there should be connected with every farmer's hog stye, a yard for muck or loam. This may be added the various kinds of litter, found about the garden and farm, in the shape of weeds, fern, bushes, leaves and the like. The urine of the hog will not only be absorbed by the peat, muck or loam, but he will masticate the vegetable litter and will mix the whole compost together, in a much more satisfactory manner than can be done with the hoe or spade. Now the manure of the hog is much more valuable than that of any other animal, as it contains phosphate of soda, lime and magnesia, not in the urine of the cow, horse or sheep; or if so, hardly to be traced.—And as a cord of loam saturated with the urine of the stable is considered of equal value, as a cord of stable manure, it follows of course that a cord of loam saturated with the urine of the hog stye, is of greater value than either. If the proper materials are furnished, to a hog in a proper yard, a single hog will make ten cords of of good manure in a single year.

And there is little or no difficulty in teaching the hog to make all of his deposits upon the muck heap. A little care will make the hog nice and particular in this matter. A hog will generally *void where there is a wet place*. Now if you wish to lead your hog to *void* upon the *muck*, make a funnel shaped hole in the centre of your muck heap, and keep this wet with water for a day or two, and he will choose that place for *voiding*. If he should *not*, fasten him out of his sleeping apartments for a day or two, and he will be sure to choose the prepared spot for his deposits.

Aside from the advantage arising from his addition to the muck heap, you in this manner make a neat and particular animal of one generally taken to be naturally a very *dirty one*.

Granite Farmer.

THE FARMER'S JOURNAL.

RALEIGH, N. C., JULY, 1854.

TRAVELING AGENTS FOR THE JOURNAL.

John Collins, and Luther Root.

LOCAL AGENTS FOR THE JOURNAL.

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Dr. R. H. Shield, Winton, "
Daniel Valentine, " "
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Col. L. W. Humphrey, Richland's, N. C.
Col. L. W. Montfort, Onslow County.
Henry Elliott, Esq., Cumberland Co.
Col. W. H. Tripp, Beaufort County, N. C.

OUR STATE AND COUNTY AGRICULTURE SOCIETIES.

We had hoped that after the unexpected success, which attended the first Fair held last fall under the patronage of the State Agricultural Society, that there would be little or no difficulty in establishing and successfully carrying on similar societies in the various counties of the State. But in this conclusion, we like many others, perhaps have been grossly deceived, for in many counties in the State, there is still no agricultural society at all, and the most of those which have been established are merely draging along yet, only attended by a few of the more enterprising farmers of the county. The advantages which have been derived from State, and county agricultural societies elsewhere, ought, it seems to us to be evidence sufficient of the happy influence (if guided by a proper spirit) that they would exert upon the farming interest of North Carolina. Surely our farmers cannot think for a moment that their lands are as fertile as they need be, and that they already thoroughly understand the nature of the various crops which they cultivate. This cannot, we think, be their conclusion, but a reason for the present condition of agriculture among us, can be very justly urged, which is less creditable to those who are guided by it. The farmers of North Carolina, have not yet ceased to believe that the political salvation of the State entirely depends upon the success of a certain political party, and in order that this or that party may succeed it is highly important that the farmers should neglect their profession and pay court to gabbling politicians, who after their elections are gained, almost forget that there are such men as farmers in the State if we are to judge of their feelings by the interest they evince in the advancement of the farming interest during the sessions of our State Legislature. As evidence of the truth of what we say, we call attention to the fact that when the State Agricultural Society was formed though our Legislature was in session at the time, only nineteen members constituted this body. The farmers of the State cannot surely be so blind as think that they can be able to compete with the improving farmers elsewhere if they are yet content to pursue the exhausting process of culture which has been so common heretofore. They must know that by an improved system of culture their lands will yield more abundant crops, their labor will be more successful, and their happiness and welfare greatly enhanced. But the great difficulty seems not to be the ignorance of the exhausted condition of their lands, but, of the means for making them fertile.

The invaluable marl beds of the eastern part of the State have been jutting out from the banks of our rivers and creeks from time immemorial, and have been known to exist for many years past, but it has been recently thought that farmers have learned their value when properly applied to land. The elements requisite for the growth of clover and other grasses have been ever in the soil of the western part of the State, but for a short time the people of that section have thought it necessary to cultivate the grasses as a crop. A speedy application of science to agriculture is all that can save our population, and enable our farmers to cope with those of other States in the cultivation of the soil· That man who cultivates his land with knowledge and understanding may expect to have a correct idea of what will be the result of his labor, for guided by science he sees readily the influence of cause and effect. The establishment of State, and County Agricultural Societes are the best means now known for the general dissemination of scientific knowledge in the culture of the soil. These men of different abilities and attainments meet together and communicate with each other in relation to their different modes of culture, and the results of the various experiments made by them, which cannot fail to benefit all besides. If not before, we hope that after the State elections, (which will soon come off,) the farmers will take a deeper interest in the State, and County Agricultural Societies, and in those counties where they are not established, that it may be done at an early date.

THE CULTIVATION OF THE CABBAGE.

We have frequently heard persons say that they did not believe that as good cabbages could be raised in North Carolina as are raised in the States north of it, but this is a great mistake, and we speak from experience. Some say that though they may grow as well, yet they will not head so well. This error is caused like most others into which our farmers and gardeners in this State have fallen. It proceeds from inattention to proper preparation of and manuring of the land which is designed for their growth. We have found it to be the case that the gardens as well as the fields of the Old North State have generally only been skinned over instead of being broken deep. The cabbage requires a deeply disintegrated soil for its luxuriant growth and the plants should not be nearer each other than three feet if it is desired that a well-formed head should be had. The cabbage, like most other broad leaved plants, derives from the atmosphere most of the organic matter requisite for its growth, and it obtains from the subsoil many of the mineral elements which are easily obtained when the ground is broken deep. A most excellent manure for the cabbage is a mixture of wood ashes, lime, the dropings from the chicken house, and plaster, in equal proportions, with the exception of the plaster only, a small quantity of which is required. Another excellent manure for this, as well as all vegetables, is the compost made near the kitchen, which is generally composed of mould, the refuse vegetables, the fragments, and washings of meat, and the soap suds used in washing clothes. It should no longer be the case that the towns of North Carolina, are supplied with cabbages from the gardens of other States, when we can with proper attention, make as good here at home as we can get from other markets.

THANKS TO THE PRESS OF THE STATE.

We again take pleasure in making our acknowledgements to the members of the editorial corps of the State, for the many kind notices which they have been pleased to give of the "Farmer's Journal," since it has been in existence. Our paper, we are well aware has exhibited many defects, which have mainly owing to the meagre support, which has been given by the farmers of North Carolina, while they have been sustaining publications of a like character in other States. But we are glad to say that the farmers of our State are beginning to see the necessity of sustaining their own people. We shall endeavour still to deserve the high encomiums which our brother editors have heretofore heaped upon us. We do not in this article wish to particularize, but we should feel that we had done injustice, if we were not especially to tender our thanks to friend Moore, of the Warrenton News, who has not only given us many kind notices, but sent us several subscribers besides.

THE ADDRESSES OF C. A. PEABODY, J. J. YEATES, AND THE LETTER OF J. S. DANCY, ESQ.—We invite the particular attention of our readers to these productions all of which are worthy of close reading. Mr. Peabody of Columbus, Ga., has long been favorably known to the horticultural community of the South. Mr. Yeates is a gentleman of fine attainments, and though not a farmer, he takes such an interest in the advancement of agriculture as we desire to see the young men of the State generally manifest. Mr. Dancy is known throughout the State as a good farmer, and a man of well cultivated mind and has had the honor of being the first President of our State Agricultural Society.

GYPSUM OR PLASTER.

Gypsum or sulphate of lime is a fertilizer which should be extensively used by our farmers, it is present by nature in many soils as well as in many crops—for instance, lucerne, red clover, and turnips. The native plaster or gypsum of commerce according to analysis contains of—

	PER CT.
Water	21
Lime	33
Sulphuric acid	46
	100

But when it is calcined it looses the greater part of the water consisting of lime, and sulphuric acid. There are some soils upon which plaster has been tried without any marked benefit, which did not proceed from the fact that a large quantity already prevailed in the soil. The object of the farmer in using it is not only to supply an element which enters into many of the plants which he cultivates, but to attract or fix ammonia for the use of plants. We mentioned that in some soils it did not seem to exert a good effect, this is in many instances caused by a deficiency of the carbonate of lime, which is needed to absorb the ammonia from the atmosphere before it can be retained by the plaster. Gypsum may not only be used in the field but in the barnyard and stables, where a half gallon may be applied to each stable twice during the week with marked advantage. We speak from experience when we say that the stable or barnyard manure is half as strong again when treated in this way. In those crops where a very large quantity of their nourishment is derived from the atmosphere it may be sown over their leaves occasionally. For instance, the turnip and clover crops both of which are greatly dependent upon the atmosphere for their nourishment. Where the land has been newly limed or marled, plaster acts well, but if the soil is worn out and void of vegetable matter it will do little or no good. The best time to apply it is soon in the morning or late in the evening while the ground is moist with dew, so that the plaster may be readily dissolved and taken up by the plants. About a bushel per acre is the quantity usually applied either broadcast or in combination with other manures.

Diplomas Awarded by the State Agricultural Society.—Those persons to whom Diplomas were awarded by the State Agricultural Society, and have not received them, will please furnish us with their Post Offices. This is the reason that they have not gotten them before this time.

Communications.

For the Farmer's Journal.

Tarboro', Edgecombe county,
Thursday, June 1, 1854.

Dr. Jno. F. Tompkins, *Dear Sir:* Absence from the State for some weeks, prevented me from doing at an earlier date, what I now propose, i. e., give you an account of our preparations for the crop of '54.

¶In the first place, our laboring force on Panola consists of thirty-four horses, of various sizes, ages and qualifications, twenty head of mules, and three yoke of oxen During the year '53, we had two wagons constantly employed in hauling up materials for manure making, beside taking advantage of every day (when the condition of the growing crop would justify it,) to make compost with our entire force. The interval between laying by the crop and the beginning of the fodder pulling and cotton picking season, (usually from two to three weeks,) was busily devoted to the making of compost and filling up our cattle and hog lots. After housing our crops of corn, cotton and peas, which we last fall completed by the 10th of December, we again set to work, composting cotton seed, and ditch bank, stable manure and low ground soil, and hauling again into the cattle and hog lots. This was kept up (with an occasional hindrance in packing cotton,) by nearly all hands and team till we commenced plowing about the middle of January, with six double teams, using the Maryland or Patuxent plow, procured from Sinclair and Co., Baltimore.

After the plowing season began, the remainder of our hands and team continued to make manure in the different ways I have mentioned, till the 28th day of February, when we commenced the troublesome and laborious job of hauling out what we had collected during the twelve months past.

We finished the work of hauling out on the 25th of April, being near two months engaged at it, and according to our plan of manuring, one load for every twenty feet square, or 110 loads to the acre, we hauled out compost enough to put on 350 acres of land or over 35,000 loads (one horse cart loads, five bushels to the load.)

Besides this we applied twelve tons of Peruvian guano to cotton, corn and oats. Some of the compost previously mentioned, had two hundred pounds guano mixed in each acre-heap. So that, altogether, we have manured over 400 acres of land for the crop of '54, at the rate of 110 loads to the acre.

Our crop consists of 220 acres in cotton, all manured, 225 in corn, 150 of it manured, 30 in oats and eight in sweet potatoes manured. The cotton crop to date looks promising (the weather at this time is, however, very unfavorable for the cotton plant, and a few days of it will alter the appearance of things.) The corn crop is backward and indifferent, and presents an irregular appearance, owing to the cold snaps the latter part of April, when much of it had to be plowed up and replanted.

Having detailed to you clearly, I hope, our preparations, I will now tell you our calculations, and when the crops are gathered, I will give you and your readers the results, so that you may see how far I miss the mark. You must bear in mind that this is our *third crop* on Panola, and the process of making poor land, fertile is the work of years, long years.

The land we have now in cultivation, when we took charge of the farm in January, '52, would have made in my opinion without manure not exceeding 400 pounds of seed cotton or two barrels of corn per acre.

Our calculation this year is to make 900 or 1000 pounds to the acre in cotton and four barrels of corn, if an average season prevails.

I will try and recollect to prepare for your January number the results of our operations for '54.

Very respectfully,
Your obedient servant,
JNO. S. DANCY.

May 28th, 1854.

Dr Jno. F. Tompkins—*Sir:* As you request subscribers to write for the Journal, I will write a small article, though not much in the habit of writing as you no doubt plainly see. Many farmers are troubled with the willow tree on their meadow and swamp lands; the following will effectually obliterate them. In the months of May or June, cut loose the bark five or six feet from the ground with a drawing knife or light hatchet, then strip the bark down to the ground and let them stand thus until Autumn or fall, when you may cut them down and rest assured there is no danger of their ever sprouting. I have skinned them in both months and they did equally well. I have stumps that have thus been cut two years and not yet a sign of a sprout. Try it.

Respectfully B. Tyson.

Miscellaneous.

MR. PEABODY'S ADDRESS.

Mr. President, Ladies and Gentlemen:

By your kind invitation, I appear before you to-day. I come not laden with rich stores of scholarship, to play upon your imaginations, and by a winning eloquence, lead you through the flowery paths of poesy. But I come to join you in your annual festival, to unite with you in the outpouring of grateful hearts to the God of all love and beauty, and to assist you in gathering together, and blending in harmonious contrasts those rich vegetable mosaics, which make up the "great altar cloth of the temple of God."

It would be superfluous for me to speak to this assembly of the honor of our horticultural calling.

I might cite you to that first pure garden, ere the weeds of sin had sprouted, and God's approving smile lit all its walks with joy.

I might come down with you to agonizing Gethsemane, another, but, oh! how changed a garden.

I might tell you of the Redeemer's comparison of the Lily of the valley.

I might take profance history, and tell you of hanging gardens, of the voluptuous bowers of kings, princes, statesmen, poets and philosophers.

But all this would give no interest to those who already appreciate the blessings of modern horticulture, and are proud of its achievements. Since man's expulsion from Eden, and the curse which followed, horticultural art has been the most important art vouchsafed him. It is emphatically the art of arts, without which there would be no commerce, no refinement; for as all the fruits of the earth are made through the flower, so are they improved and perfected through the same medium.

Horticulture should embrace the whole culture of the earth, vegetables, fruits, grains, and flowers; and if we had more of the farm, the orchard and garden combined together, we should be a happier, wiser and better people.

Premising that my audience admit the truth of these propositions, I propose to go with you into some of the practical details of the horticulture of the South.

There are minor matters, to which I would first call your attention, not the less important, that they are apparently insignificant.

Grains make up the great earth; drops the vast ocean. But horticulturist may, if he will learn lessons of practical wisdom from the smallest, and apparently most insignificant of the Creator's works. How important to the gardener, florist and farmer, everything that may indicate the changing weather, as upon cloud and rain, cold and heat, thunder and lightning, must depend all our flowers and fruits, both of usefulness and beauty. What an imperative necessity then, that we should learn to heed the hundreds of natural barometers, which a wise and provident Creator has so lavishly placed around us. Witness the cunning spider, how closer he draws his web, furls up the floating gossamer, and like a skilful mariner, prepares for storms, when man, endowed with reasoning powers, sees no indications, and is caught unprepared.

The myriads of tiny insects that sport their brief existence, high upon the ambient air, leave their higher flights, and hover near the earth, as the density of the atmosphere too plainly tells them of storm, and the gliding, swift winged swallow, guided by an unerring instinct, follows in her flight, in pursuit of her nestlings' supper The familiar house fly ventures abroad in the calm sunshine, but precipitately returns, ere the storm cloud is visible to man.

Ducks and geese, that during a long drought have been as quiet as a convention of Quakers, suddenly, and without an apparent cause, stretch their necks, flap their wings, giving tumultuous shouts, and by their actions, fancy themselves in water.

All domestic animals show unmistakeable signs of changing weather. The door-yard cock flaps his wings and crows exultingly, the live long day preceding a rain. The slimy snail, that apparent pest of gardens, is a practical meteorologist; he only drinks by absorptions, and when you see his transparent horns protrude from his shell, know you full well that rain is near. The oft slandered toad, leaves his shaded nook at mid-day, a jumping barometer, foretelling rain, almost to a certainty. These animals read no almanac, but the hieroglyphic stars know no canopy but the cloud curtained sky, and if we will but study their humble, unwritten teachings, we may learn lessons of profit, as well as of wisdom.

Think not the whole art of horticulture ever can be written in books; each dew drop that glistens on the petal, in the soft still morn, each thunder's peal, or lightning's flash, each minute insect that wings the air, or crawls the earth, is a volume of horticulture unbound, which may be read in sheets, if not fully comprehended.—Study well these unbound volumes of nature, for they were written for our benefit, by the finger of God.

The most important element in all horticultural pursuits, is water. It is well known, that it is only in a soluble state that plants can take up food. Would not common sense, then, teach us when we provide an artificial food for a plant, to provide the means of diluting? And, independent of this, water is in itself a fertilizer through the gases which it contains. Artificial irrigation should be employed by every gardener or florist. There are few localities that cannot command a fall of water sufficient to elevate itself through a hydraulic ram, to supply the flower and vegetable garden, and where this cannot be done, a proper location of cisterns with force pumps, will answer every purpose. Were there no vivifying power in water, it would be worth your attention to bring it into your grounds for its beauty. There are many localities in this immediate neighborhood, where, for less money than a fine carriage costs, pure water may be perpetually run through the grounds; may dance in wild glee in the crystal fountain, sparkling in the flashing sun-light, or running through tubes and pipes, carrying life, and health and vigor to all the surrounding vegetation.

To those who cultivate flowers or vegetables for pleasure or pastime, I would recommend a hydraulic ram. To those who cultivate them for profit, I would recommend it also, knowing that water is so important to all vegetable, as well as animal life—water! water! every living thing cries aloud for water.

In the culture of garden vegetables, we are making some progress. Garden culture, like fruit culture, has been clothed in much mystery, and, until within the last few years, our up-country gardens could boast of but little, save collards and peas. But now we are beginning to think and act for ourselves. We find that there is no spot upon the globe more congenial to the growth of all the fine varieties of garden vegetables, than the country which we inhabit. By a proper admixture of early and late varieties, and a frequent change of seeds, may we have the hard head cabbage every month in the year; most of the best vegetables in use originated in a warm climate. But for a long time we took all our instructions in their culture from the cold regions of the North.

The Irish potatoe, egg-plant, tomato and okra, are all natives of warm climates, and, with a culture adapted to the South, are infinitely superior to those grown in colder latitudes. It must be borne in mind, that of all the edible plants, now cultivated in the garden, very few were palatable in a state of nature.

To the English, French and Germans are we mainly indebted for most of the delicious vegetables we eat. It is horticultural art which has turned poisonous juices into nourishing food, and if you seek to make no improvement in the art, you should, at least, know something of it, to be able to keep your gardens up to their present standard. The great error in our gardening is in the misapplication of manures. The gardener should remember, that plants are like animals; both must feed, and both require that specific food which is best calculated to increase their growth and perfections. Hence the importance of knowing all the elements of manures, and the special requirements of the plant. All plants have the remarable power, inanimate as they are, of taking up that through their mouths, which will most develop them, and of rejecting that which is uncongenial. Surely nature has done every thing to teach us; and yet with the thousands of living, glowing lessons eternally spread before us, we wilfully close our eyes, preferring to feel our way in darkness rather than glean wisdom from the bright creations around us. Viewed as a matter of independent economy, there is no branch of human labor that pays better than the vegetable garden. And who of you, having tasted this independence, would be willing to go back to that greater state of savage independence, and live without a garden, subsisting like the wild man of the woods, upon the untamed productions of nature? Who, having tasted its pleasures, would forego the healthful exercise of its labors? Was there no pecuniary profit; was the garden cultivated but for the love of culture alone, it would commend itself to every intelligent mind. But when we take into consideration our dependence upon its products, that "all flesh is grass," and that from its resources mainly spring these casements of the immortal soul, who shall dare despise the vegetable garden?

The historian tells us that the last year of Napoleon's life was mostly passed in cultivating his vegetable garden, and was the happiest of all of his dazzling years. I know it is popular to laud wholesale butchery; that a thousand killings make a hero; one, a murder. I know that the gleaming sword has more charms for what the world calls patriots, than the pruning-hook or spade, yet what true philanthropist but can see in Napoleon, the gardener, a greater and better man, than Napoleon, the conquerer! Had he given to the world one new vegetable, fruit or grain of real merit, he would have accomplished more for his race than ever as Emperor, Consul or King, and the world would have remembered him with gratitude.

With all our progress, our vegetable gardening is yet in its infancy; we have much to learn from experiment; we, like the rest of mankind, are too prone to follow the lead of others. Yet with a climate and a soil adopted to every culture; with a labor peculiarly our own, why shall we not break the leading strings?

Here we may have two or three crops of Irish potatoes; two or three crops of green corn; English peas in the spring and fall; cabbages of the finest quality the year round; cauliflowers and brocoli in the spring and winter; onions and leeks perpetually; turnips and celery almost continually, and everything else in their season, in the greatest perfection and abundance. No intelligent house-wife in our favored land, need be without a variety of choice vegetables upon her table each day in the year, and I am gratified to see the evidences of this fact exhibited here at this festival.

To you gardeners of Chunnenuggee is the country much indebted. Your "light is not hid under a bushel." I myself have seen its gleamings, in the mountain passes, and on the shores of the balmy gulf. Renew your oil, retrim your lamps, and with the aid of natural science, and your own indomitable energy, your light shall illumine the whole sunny South.

In fruit culture we are making some astonishing developments. The Apple, which has long been claimed as peculiarly a Northern fruit, is found well adapted to our culture and climate. But this, like all fruits originating in a colder climate must be understood to be appreciated. First, we must produce our own Seedling trees, and progagate from those we find to be good. The astonishing precocity of our Seedling Apples in producing fruit, in three and four years, from seed, will make ample amends for the rapid decay of the tree after maturity.

The Pear is better adapted to our climate than the Apple. This also should be propagated from seed. It is somewhat longer coming into bearing than the Apple, but the tree is hardier, longer lived, and not as subject to disease. There is a blight which the tree is subject to, which some call frozen sap blight; others fire-blight. I have no idea that frozen sap has anything do to with it. I think it is caused by a minute insect. The first intimation the cultivator has of its appearance, is the rolling of the leaf, which soon turns black. The only remedy I have ever found, is an amputation.—Cut off all the diseased parts and burn them.

The Pear and Apple are easily grafted, and may be grafted into seedling roots, taking care to graft from a fruit bearing tree, or graft into old limbs. There are many Pear trees that appear to be barren, not yet having produced fruit. These may all be headed back and grafted with choice bearing kinds, which will give fruit the second year from the graft. The prevailing diseases of the Apple and Pear are mostly occasioned by their not having their proper food.—There is a special food both for the wood and fruit, and if the cultivator expects success, he must make it his study to find them out. The fruit of the Pear loves Phosphate of Lime. The tree, to be healthy, must have Iron.

The Peach, Plum and Cherry are stone fruits, well adapted to most localities at the South.—They grow readily from the seed, but there is no certainty of their producing their like. I once purchased a peck of very superior late Peaches, on the 24th October, and carefully planted every bit, and out of the lot did not get one good eating fruit, and none at all resembling the original. They are easily propagated either by grafting or budding. I prefer, for ease and simplicity, to graft into seedling roots. Should any of you be ignorant of the process, I refer you to the horticultural journals of the day.

The Fig, Grape and Strawberry are all important fruits to our section, and should receive more general culture. Every body with a square rod of ground, may have these fruits. You are too familiar with the Fig for me to dwell on its culture, but I would recommend you to experiment with seedlings. There are some Figs cultivated among us, which, for aught I know, have come down from the identical tree accursed by the Savior, for they seem never to bear. Were we to go through a regular system of seedlings, we might have Figs to dry, and drum up for use and exportation.

Our whole country abounds in native Grapes, and yet an eatable table Grape is a rarity among us. Here is a fine field for your society. Try seedlings, hybridize between the native and foreign. The Catawba is a hybrid of the Fox Grape. The Scuppernong a hybrid of the muscadine. The special food of the Grape is Potash.

The Strawberry is exciting a general interest among horticulturists all over the Union.—Twenty years ago, the Southern lady that could treat her friends to a saucer of Strawberries, was performing a horticultural miracle, and Strawberries whispered by many a sweet mouth that never got a taste of them. Now behold the change: We have learned to adapt their culture to our soil and climate, and, like the son of Erin, they like the country so well, they have determined to become natives, and instead of saucers, we have gallons and bushels. The lamented Downing, states in his "Fruits of America," that the Strawberry is a native of a cold climate, and cannot flourish in a warm one. Could he rise from the grave this day and walk through my Strawberry grounds, he would have one chapter to erase from his valuable work; for I could show him, what many of you no doubt can, Strawberries fruiting from early spring until late fall. The Strawberry grower should have a perfect knowledge of the pistillate and staminate varieties, as upon proper proportions of these will depend his crops. I have often stated, that the two great elements of success in Strawberry culture, was shade and moisture. The Strawbery is usually propagated by runners, but no fruit is easier raised from seed. Here is a fine opportunity for your Society. A Chunnenuggee Seedling which should equal Hovey's, would be a benefit to your country, and an honor to yourselves.

It is through the hybridization of plants that all our fruits, flowers and vegetables have been improved and perfected. The luscious Peach was but a poisonous kernel; the downy Plum, a bitter Sloe. The juicy Apple, an acrid Crab; the melting Pear, a choke. All the grains, fruits and vegetables, have been changed through the pollen and pistil of the flower. Is it a wonder, then, that man, in seeking to improve those fruits and grains, which make his daily bread, should have learned to love the beautiful agents.

Flowers! sweet flowers! We love them, that they are the harbingers of fruit; we love them that they are the smiles of God. And, oh! my friends, what a floral heritage is ours!—Every breeze that fans the brow of spring, comes to us redolent of perfume. Every ray of sunlight that flashes on mountain or valley, gleams back a flood of beauty. "Bless God for flowers!" The out-door culture of flowers is simple, that I need not consume your time in commenting upon it. It is to the *influence* of Floraculture that I would call your attention. Associations of beauty have ever had the happiest influences on the human race. I will not insult your intelligence by attempting to prove this fact. God in his wisdom has so made the vegetable kingdom, that they not only unceasingly sing and speak his praises, but lead the proud spirit of man to do the same. It has been said, the undevout astronomer is mad. The undevout horticulturist is worse than mad. He is a fool. What man of common sense can call the humblest flower, can witness the germinations of the smallest seed, without remembering the mighty power than can so blend colors and perfumes, or that can rear the stately tree from the tiny seed.

Gentlemen! there is something more important than fashion in Flora-cultre. What if there be proud spirits among us, that look upon it as effeminate! or utilitarians that can see no practical benefit in it! Tell me, you who have frequented the criminal courts of our State, when have you seen one charged with crime who passionately loved the culture of flowers.

Mothers of Alabama! there is a great responsibility resting upon you. A horticultural metaphor beautifully says: "Just as the twig is bent, the tree's inclined." Give your children lessons of beauty; teach them music, else listening to nature's melody, they catch the fire, and roam where fashion's votaries blend music with vice. Teach them the love and culture of flowers, else sighing for something to love and something to worship, they bend the knee to Baal, and love the gilded vices of the day. In short, make your homes beautiful. Every tree, shrub or flower planted, is but another link to bind the family together, to increase the value of your property, and swell your resources of the State.

Falter not that you have not skilful scientific gardeners to rear far-fetched exotics. You have woman's taste and woman's love. Our whole country teems with the richest specimens of Flora's dominion. Bring but your woman's heart, and woman's will to the rescue, and every hamlet where a mother dwells, shall hold a happy and united family, teeming with the beauties of nature and of art—a living gem upon stern nature's breast.

There is another matter intimately connected with horticulture, to which I would call your attention. The graves of our fathers, where are they? The graves of our children; their images are embalmed in our hearts. Shall not their bodies be embowered in flowers? There is, to my mind, something so beautiful and appropriate in a grave dressed with flowers—mortal pointing to immortality! We may not have the means of constructing large rural cemeteries, but every neighborhood may have a place consecrated to the dead; a spot of romantic beauty where the oak, magnolia, cedar, holly or the chestnut may rear aloft their brawny arms, beneath whose clustering shade affection's hand, guided by our beautiful art, may embellish with simple flowers, the last deep bed of the loved and lost. It is another link to bind us to home and country, and pleads in silent eloquence the power of beauty, not only in life, but in death.

To the members of these Horticultural Societies is the country much indebted: already do we perceive the influence of your example. The rose blooms now before the humble cabin. The clematis climbs the rude pillar. The garden is paled in. Fruit trees show blooming heads. Shade trees invite the white-haired urchin under shelter, and we find an air of thrift, cleanliness and comfort around many a dwelling, where, before, disorder reigned.

Persevere in your noble work; unite your heads, your hearts, and your hands; you have not only embellished your own homes, but you have aroused a spirit which, like the circling waters, will spread until it loses itself in the distance. Let your motto be, the farm, the orchard, and the garden—a union of all. Gentlemen, let your plantations be gardens; and, ladies, your gardens plantations. Then, indeed, shall we realize the full capacity of our soil and climate, and one vast blooming, fruitful Eden, smiles around us.

From the Soil of the South.

STOPPING GULLIES.

Mr. Editor: In your March number, is an article from the pen of Dr. Kendall, on the subject of "stopping gullies." He says that if any one has a better plan than his, he would be glad to hear from it. Well, I have a better plan, and Mr. Kendall shall be made acquainted with it.

The way to manage an old red hill-side, full of gullies, is, to make a good large ditch above and below, such as will be certain to carry off the water without its breaking over. Then cultivate up to these ditches on the two sides where they are found, and as close up on the other two sides as you can. Thus you see you have gotten that mortal enemy to the farmer, to wit, the hill-side and gullies, securely ensconced between cultivation on all sides, and two strong ditches on the side where he is most dangerous. He is "scotched," and now we must "kill" him.—This is to be done by cutting off his supplies, and *keeping them cut off.*

Running water is what makes the gullies, and without it, they cannot be formed, and those that are formed cannot be larger. Cut off the running water by your upper ditch and you stop any further washings. Then to fill up your gullies, and renovate your hill-side so securely fenced in as I have heretofore described, plant out pretty thickly the common old field plum in the gullies, on the banks and all over the red place. Throw brush, logs, rocks, briars, and every thing else into some of the larger gullies, and if you have time, over the whole red place. The plum will increase very rapidly, and by shading the ground, it will induce other vegetation to put up, and in a few years your gullies will be filled, and your hill-sides renovated.—The plums grow so thickly that they not only shade the ground so that other vegetation will grow, but they securely prevent any vegetable mould from washing away. There is nothing more fertilizing, for the reasons I have given, than the plum tree.

But other things may be used in its stead, and along with it. The berries of the China tree are highly fertilizing, the tree itself is of a quick growth, and you may plant it to great advantage on red places. Then briars are a fine thing also. But you need not plant these. Only shade your ground by plums and the chinas, and kind nature has left an express order to do the balance for you. Her ærial messengers—the little birds of the air that she has fed upon her daintiest blackberries of the season—will fly to the plum trees to perch among their delicious fruit, and will drop for you the seeds of the briar, which will spring up and do you good service.

Another good thing to plant in your gullies and on your red hill-sides after ditching, as I have described, is prickly cabbage stalk, or the bear grass, or any thing else which will "take fast hold, hold on and never give up"—the negro's idea of "final perseverance"—and which will shade the ground, and prevent vegetable mould from washing off. And were not Bermuda grass such a tough customer—were it not *too* "final" in its "persverance"—did not have *too* much of the "hold on and *never* give up" about it, I would recommend this as a renovator, and as a good thing to stop gullies. But under our system of "*planting*," we had better let it alone. If we were *farming*, it would be the very idea.

The superiority of my plan over Mr. Kendall's consists in this—that it requires less labor, and in addition fertilizes the land, as well as stops the gullies. His is a quicker plan, for he goes to work, fills up the gully, and then plants it.—But he who sets out with the intention of stopping all the gullies on an old plantation in Georgia, will have but little time to do anything else: I mean if he attempts to fill them by putting in dirt alone. By my plan he may fill them with but little outlay of labor. It takes time to do it. But recollect we would not cultivate the red hills and gullies, usually called "galled places," any way; and so we had as well put them in a condition to improve while we are cultivating other land.

The object of your ditch at the base of the "galled place," is to make the gullies above it fill up. For notwithstanding your ditch at the summit of the hill is designed to, and *must*, carry off the large body of water which collects above, and which used to feed your gullies, yet enough will collect on to the hill-side or "galled place," between the foot and summit ditches, to be of service in filling up the gullies.

The summit ditch must never break over, or away go the dirt and sand and vegetable mould which have collected in the bottom of the ditches—for if the upper ditch breaks, the lower one will too, and give an outlet to these things.

In order to make your summit ditch certain of not breaking, the whole field above the hill you are operating upon, must be ditched also, or so much water will be thrown into the upper ditch that it must needs give way, and all your labor will be lost.

Mr. Kendall says he has "tried ditching, filling up with brush, litter, &c., to very little purpose as to stopping gullies already formed." Well, the reason of it is, I am afraid, he has not done his work properly. I fear it was only *half* done, instead of being well done. I fear so, 1st, because that it is the way people usually do ditching: and, 2dly because of his ill success. For I am confident that if you will do your ditching as it should be done, and then do no more than fill up your gullies even with "brush, litter, &c," these gullies will stay stopped, and become fit for cultivation.

Now, how have people—even those who have pretended to ditch their hill-sides—usually treated their "galled places" and gullies?—Those who have never ditched have let them alone, and they have grown up in pines, sedge and briars, and have been partly reclaimed, and are being reclaimed to a limited extent. Those who have pretended to ditch, have treated them worse than letting them alone. For they have suffered all their ditches to stop here, and all the water collected in them to be thrown upon the red places, thus preventing the accumulation of any soil or vegetable mould, and washing out the gullies more and more. This is not the way. Where the galled place is small, and the gullies shallow, and you do not wish to have an outlet for the water in that place, a ditch above and below will do. Where the galled place is too large for this, it is then proper to run one or more ditches between the summit and foot ditches, stopping the gullies where these intermediate ditches cross. Do this, even if you are not cultivating the spot of ground, and it be as red as crimson, and as little acquainted with a particle of productive soil as if the whole face of the earth were destitute thereof. Then all between the ditches put out the trees and plants I have indicated, and this "desert shall rejoice and blossom as the rose." Your ditches must *not* stop at gullies and galled places, but *must run on through them*, if you wish them filled or renovated. Then in addition to the plum trees, &c., pile in your brush, litter, &c. And if Mr. K. had so managed, he would have found his gullies filled or filling up.

The ditches must be kept open. You must rake them out where they fill up, and you must mend the banks where the water breaks over.—The first heavy rain that comes will show you their weak points, and you must apply the remedy. Every time you work over a field, either with plow or hoes, you must do all needful work to your ditches. Tend them as carefully as you would rows of cotton, and they will pay them back ten-fold.

If you will follow my prescription, I will warrant a cure for your gullies. If you only half follow it, I will vouch for no such pleasing result. Ditching, especially in connection with stopping gullies, must be well done, or it had better be let alone altogether. I have considerable experience, and much observation in this matter, and I have no hesitation in saying, that in the majority of cases which have come under my observation, in which hill-side ditching has been attempted, it has been more harmful than beneficial—simply because not well done.

I could say much more on this head, but must desist. PETER PICKLE.

From the Country Gentleman.

GUANO IN MARYLAND.

Of all the modern discoveries in the science art of agriculture, that of the application of guano has been of the most benefit to Maryland.—You will observe that I have not even excepted chemistry, for which the *professors* claim so much. In the western counties of our State, and particularly Montgomery, I have been told its effects have been almost magical; and wherever in our borders, poor lands abound, there guano has been and is still achieving miracles. Had you, Mr. Editor, a few years since passed through our country, and seen some of our worn-out lands deserted by their former occupants whom they could no longer support, cut into gullies by the rains, and covered with a scanty growth of sedge and a large crop of sassafras with here and there a gravelly knoll of an acre perhaps in extent, entirely destitute of vegetation, and could you again visit us and see these miserable barrens now waving with a yellow harvest of wheat or blooming with a tangled mat of clover, you would deem that Oberon and

Titania had been working for us with their magic wands. In the meantime, however, guano has been the only fairy who has visited us, to my knowledge.

The writer of this article resides upon one of the public turnpike roads leading to Baltimore city, and above us is a tract of country known as the "barrens," which mica slate is predominating rock. Parts of this tract are rich in minerals, crome, copper, magnesia, &c., but poor, as its name implies, in agricultural products. Some years ago the agricultural exports of this tract consisted of tan-bark and sassafras roots; the imports, of herrings and whiskey. These articles passed our doors usually in two horse wagons drawn by phantom steeds, whose close drawn hides and prominent bones showed that "luxury that cursed by Heaven's decree," was not among their sins. Now the tan-bark and sassafras roots still go down, but the guano bags have crowded out the herrings and whiskey, and pretty good timothy has taken the place of the swamp grass. Each horse in the team, and they now have three or four, has as much flesh on him as would have made two of the phantom steeds of former days,and they move along with a proud air and quick pace as if conscious they are on the road of improvement. There is no mistaking the independent swagger of the driver as he passes along with the brim of his hat turned up all round (a sure sign that he has corn for sale,) alternately singing or whistling a good camp-meeting tune and swearing at his horses.

"The deformed" has indeed been "transformed," but whether all this manifest improvement is to be a blessing or a curse to us, remains yet to be seen. For my own part I fear, like all things terrestrial, it is not unmixed with evil, and in many cases it will prove that we have only been playing upon our children the same stale joke that our ancestors played upon us, reaping large present returns without being particular about the incomes of those who come after us. Well, according to the enlightened wisdom of a Pennsylvania legislator, we owe posterity nothing, inasmuch as they have done nothing for us.

Seriously though, the readers of this piece can see for themselves whether my fears in this respect are not well founded, by consulting an analysis of guano and of the ashes of the Cerealia. It will be perceived that every 100 lbs. guano contains about six pounds of alkali. Now the amount of guano usually applied to wheat is about 200 lbs. per acre, and in a crop of wheat is about 200 lbs. per acre, and in a crop of wheat of 25 bushels to the acre, we take from the soil about 32 lbs. of potash and soda. Nor are the alkalies the only articles thus exhausted. Analysis proves the same true of the phosphates. It would require 500 lbs. of guano per acre, to restore to the earth the elements removed in a crop of wheat, and still more for a crop of corn. Fortunately for us, our ancestors, in their system of skinning, seldom penetrated the soil deeper than four inches. Good farmers now go from eight to twelve inches deep, and those who subsoil eight inches deeper. If then, by the application of the stimulus of ammonia, we draw the alkalies and prosphates from this depth of soil, will not our posperity have just cause to curse our improvidence. For land exhausted under such a system of culture, must be poor indeed. The only way to restore its fertility, would be to bring back the ingredients from the ends of the earth and again apply them. There would be no power of self-improvement in such lands.

To my mind the system of farming in Maryland, yet needs reform. We must raise more grass, more roots, more stock, and feed them on our own premises, and husband more carefully all the resources for manuring about our own farms, for the garden of Eden itself could not forever withstand the tremendous drain of nutritive principles implied in a course of rotation which now obtains in a large part of our state, corn, wheat, and clover; two crops of cerealia and one of grass, with 200 lbs. of guano to the rotation. The farmers of Maryland are, however, men of great enterprise, and can write as *long* articles on almost any agricultural subject as any men in the world. I have therefore great hopes that in a short time they will see these matters in a new light.

You may think from the above, the writer is no great advocate for the use of guano. He assures you however, that it never had a better friend; but it is a source of grief to him that so great a blessing should be made a curse by injudicious use.

I shall now address myself to the task you assigned me.

In the first place I will remark that it has become a maxim among us, that the poorer the ground the better for the application of guano. It will not pay so well if applied to ground capable of bringing 20 or 25 bushels of wheat per acre; the increased yield here, even with a favorable season, will not be over 10 to 20 per cent, and the richer the land the less yield, and some say it is seldom used. But to the man who owns a farm exhausted by crops of corn, oats and tobacco of his ancestors, and upon which he has been breathing (living would be a strong word) for years—his land too poor to bring clover even with the aid of plaster, and the farmer too poor to apply lime and manure, guano proves an enchantress that charms him out of starvation into the midst of peace and plenty. If he be a judicious man, and can sell enough of anything to buy a few tons of guano, his fortune is made. He plows up his old field in August, and about the first of October sows on from 200 to 300 lbs. of guano, and harrows it in, with a bushel and a half of wheat per acre; and where before broom sedge would scarcely bloom, he harvests from 15 to 25 bushels per acre, an increase of from three to five fold. In the March following, he sows on clover seed, and you may imagine the astonishment of the old cows the year afterwards, when cropping the blossoms of the succulent clover on grounds where formerly they had toiled all the day long for a precarious existence, browsing sassafras buds and the airy stems and buds of the broom sedge.

The race of improvement has now fairly begun, and the farmer, instead of being at an expense for manures, finds, after his crop is sold and all expenses paid, a strange jingle of surplus coin in his pocket. If now he turns under his clover as deep as he can drive it, and applies 100 bushels of lime to the acre, a fertilizer that is at hand everywhere in Maryland, his land is made. I heard of a man who, having $1,500 in cash, purchased a farm on a credit for $6 or $7 per acre—the whole cost being $2,500. Instead of doing as you would suppose any sensible man would do, pay the $1,500 cash on his debt,—he expended the whole in guano, and applied 300 lbs. per acre on the worn out fields of his new farm, and sowed on wheat. The result proved he was not so big a ninny as he was generally esteemed. He paid the whole $2,500 with his wheat crop, and improved his land by a good set of clover at the same time. If, however, the farmer should continue the application of guano without other manures in the quantities above mentioned, the yield will be a diminished one until finally for reasons above stated, if the deductions of science are not all false, the final condition of that land must be worse than the first.

Guano always acts better in soils retentive of moisture, having a large per centage of clay.—The ammonia of the guano unites with the clay and is given out to the solvent powers of the water present for the gradual nourishment of the crop. Hence, too, it acts better in moist seasons than in dry, a fact that is true of all other manures. On light soils particularly, if the particles are coarse, its action are not so favorable, and unless the season is very moist it scarcely pays. The reason of this is to be found in the porous nature of such soils, and their high evaporating powers.

Should guano be combined or applied without mixture? This question was much mooted a year or two since in the columns of the American Farmer. The editor contended it should always be combined with plaster to fix the ammonia. A Virginia chemist on the other hand, asserted that such combination called into play chemical affinities which injured its efficacy. The one adduced experiments to prove that it acted well with plaster; the other proved by the same process of reasoning, that it acted well without. I am satisfied that it acts well in either way. On light porous soils, I should however, combine with plaster or sprinkle with sulphuric acid, and so turn the ammonia into a sulphate which is not volatile. The usual mode of mixing is to turn the guano into a large box, and add 1 bushel plaster to 200 lbs. guano, sprinkling with water and stirring till intimately mixed. With large parcels the same may be more conveniently done by spreading the guano and plaster on a tight barn floor, and turning with a shovel, sprinkling with water as before. Some again mix it with strong brine, (solution of the chloride of soda) turning the ammonia into a muriate. I am not satisfied that it acts so well in this state as in a sulphate or carbonate, though the brine by adding alkili, in which the guano is deficient, is thus far of advantage.

Should guano be plowed under? This was always insisted on in its first applications. Uncombined, it certainly ought never to be used as a top dressing, and although it ought not to be in contact with the seed, its caustic nature in that case destroying the young plant, yet it ought to be as near the seed as possible. The most approved plan now I believe is to harrow in wheat and guano at one operation. Many of our farmers are now commencing to use the drill which greatly facilitates the application of all concentrated manures.

Should guano be applied to spring crops? My own experience and observation lead me to infer that it does not pay unless the season and soil are favorable. We rarely have a summer sufficiently moist to dissolve the active principles of the guano, and the crop is libable to burn, and on hoed crops where the surface is exposed, evaporation goes on so rapidly that the ammonia is exhaled before the crop manures; and often in its early growth, while the moisture of spring is still in the ground, the luxuriant appearance of the crop leads the farmer to form high expectations that are in the end disappointed—and then after all amelioration of the soil is put out of the question by this mode of using the article. I once sowed 300 lbs. Peruvian guano on an acre of poor ground—soil alluvial, very fine but of light particles. The result was eleven barrels of good corn, or as Cousin Jonathan would express it, 55 bushels shelled corn, the season being favorable. The following year I sowed oats and could see no difference in the crop where the ground was guanoed and where it had no manure. I think a very large yield of corn might be realized by applying 500 lbs. Peruvian guano to an acre of ground in the fall. In this case a piece of loamy land should be selected, deeply plowed and subsoiled: then as late in the fall as the frost would permit, sow on the guano, intimately mixed with 2 1-2 bushels plaster, and harrow thoroughly. In the spring plow lightly and harrow again, and plant the corn in drills; the stalks one foot apart, the rows three and a half feet apart, and the result will be a premium crop at any cattle show.

To the potato crop guano is often applied with the best results, 200 to 300 lbs. per acre. In favorable seasons the yield is very large. Yet in Maryland not much guano is thus used, the oat crop not being esteemed as profitable under any circumstances.

As a top dressing for the grasses, guano is not much used in our State, in consequence of its volatility, and also of the fact that we do not raise half as much grass as we ought to do, nor take half the pains we ought with what we do raise; but if any of your readers wish to take a premium for timothy, let them mix 100 lbs. Peruivan guano and 100 lbs. nitrate of soda, adding 1 bushel of plaster; let them lie in a heap a week, turning them every day, sprinkling with water to allay the dust, and if he has a tolerable soil and a good set of grass on his land, it matters not how poor it is—the result will astonish him.

C. V.

APPLYING GUANO.

The Mark Lance Express, an English paper, contains the following directions for using guano:

First—Never mix it with anything; all lime, compost, and similar ingredients, too often contain enough caustic alkali to drive off the ammoniacal parts, before the soil can surround and absorb them. A vast amouut of mischief and loss often follows this sad mistake. If they could apply it alone, the soil can best adapt it for plants.

Second—Mix as much as possible with the soil, not too deeply, but plow it in after sowing it broad cast, unless it be for beans, or drilled and ridged crops, when it may be sown on the surface before the ridges are made.

Third—If applied as a top dressing, always apply it, if possible, before rain, or when snow is on the ground; and if on arable land, harrow, hoe or scuffle, if possible, immediately after the operation.

Fourth—The best mode to apply it is by water. A slight solution of it is by far the most powerful and speedy application.

Fifth—If sowed with drilled grain, or indeed any seed whatever, it should never come in contact. It is not a bad plan to sow broad cast, after the corn-drill, and then harrow, as it is kept in the nearest proximity to the seed, without coming in contact with it.

Lastly—Be sure to get, if possible, the *genuine article*; *cheap* guano there is none. It is best to have a quantity purchased together, and analyzed by a practical chemist.

The quantity of *genuine* guano, per acre, used, is from two to three hundred pounds. The latter quantity when the land is deficient and requires speedy renovation.

Remarks.—The foregoing are among the best and most practical directions for using guano that we have seen, though we cannot fully agree with our English contemporary, "never to mix it with anything." There is one substance with which guano may be safely and advantageously mixed, under almost all circumstances, namely, charcoal-dust. The latter is free from all deleterious minerals, and while it absorbs the ammonia, retains the same until called for by the plant.

It is generally admitted that liquid manures are most beneficial, and most quickly available; accordingly the Mark Lane Express says that the best mode of applying guano is by solution in water.

For American farmers the best mode of applying guano is that which will "pay" the best. Guano is the most convenient of all manures. A wheelbarrow load for some soils is almost as good as half a dozen cart loads of common barn manure. Screen your guano, load your wagon, sow the article on the field, plough it under, and the work is done.

Now, the question is: Can we devise any practical method of applying guano, which is, on the whole, cheaper than the above?

To apply guano in solution, we must have tanks, and water. These can be had at no great expense generally. The most difficult part of the undertaking is its application to the soil. It has been suggested that a hogshead mounted upon a cart, with a tin sprinkler attached, like the common city street waterers, would suffice. The expense of this apparatus need not exceed five dollars above the cart. It is alleged that, in this manner, nearly all fields can be dressed with guano as quickly and with almost as little labor, as by the common mode, and consequently with much greater economy.

This is a fair subject of experiment. He who demonstrates the actual practicability and advantage of the liquid plan, for our farmers, will rank as a benefactor. But let us have no moonshine. We have no money to spend in steam engines, force-pumps, and hose-pipes, though we have all read that by these means wonderful results are produced.

It is not unlikely that the greater moisture of the atmosphere in England, may render surface sprinkling with guano water, much more beneficial there than it would be here.

In this country, too, it must be borne in mind that land is cheap and labor scarce as compared with England. There may be many features in the best farming of that country which could not be advantageously adopted in the United States.—*People's Journal.*

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THE WHEAT CROP IN ILLINOIS.—We learn from the Alton Telegraph, that the wheat crop throughout the State has never looked finer, and if nothing intervenes to cut off the promised yield, the crop will exceed all calculation.—Throughout Madison, Jersey, Greene, Macoupin, Montgomery, Scott, and other adjoining counties, a much larger quantity than usual has been planted, and the same is said to be true in other parts of the State. Illinois is expected this year, to take her place next to Ohio, as the second wheat growing State in the Union.

◆

"A CALF AS IS A CALF."—J. N. Brown, of Island Grove, has now a "calf as is a calf." He is a full blood short horn Durham. On the 18th of April, when four months and 28 days old, he weighed 556 pounds. On the 6th of May he weighed 640 pounds. On the 15th of May, when just six months old, he weighed 668 pounds. He is still increasing in size rapidly. He has had the milk of only one cow. If any body about in these parts has a calf that will beat this calf, bring him on!—*Illinois Journal.*

◆

FOR CURING WOUNDS IN SHEEP.—Take the leaves of the alder tree, and make a decoction, and wash the parts injured from one to three times a day, and you will not be troubled with flies or worms on the wound. It also removes fever from the wound, and is healing.—*Ger. Tel.*

IRISH POTATOES.

Mr. Editor: I observed in the last number an article on raising and keeping Irish potatoes. I last year raised a fine crop pretty much on Mr. Mitchell's plan, and kept them perfectly sound through winter. Planted this spring of my own raising. Mode to keep them: Dig the potatoes as soon as they are matured—I don't care if in August. It is not so much the hot weather that injures them, but remaining too long in the ground they become watery. After they are dug, place them on dry sand, in a house sufficiently aired; and when dry, (which will be in December,) put them in hills, as we do the sweet potato—and I warrant he who tries it, will ever after do it. When drying they should be noticed, and those decaying should be instantly removed, for the disease is certainly infectious, as you can rot a sound potato by putting one touching it that is decayed. Respectfully,

W. S. HILL.

N. B.—I am from Virginia, and grew potatoes there, and can safely say the above method of keeping preserves them better, and they actually keep better here than there.

W. S. H.

Opelika, Russell Co., Ala., March 8, 1852.

◆

Soaked Corn for Horses.—One of the most successful and judicious farmers in the vicinity of Baltimore, effects a saving of from one-third to one-half of his corn, by soaking it thoroughly before feeding. His method is this:—Two empty vessels, hogsheads, or something similar, are placed in his cellar where there is no danger from frost, and filled to the chime, with ears of corn. He then pours in water till the receptacles are filled. When well soaked, the corn is fed to the horses, and when the contents of one cask are consumed, it is again filled, and the animals fed from the other. Even cobs, soaked in a similar manner, but in pickle instead of pure water, are eagerly devoured by cows, especially if the usual allowance of salt is withheld. The corn cob contains a large quantity of nutriment, and is by far too valuable to be thrown away. —*Germantown Telegraph.*

Worms! Worms!—Various theories have been started relative to the origin of intestinal worms, and yet the question is still a vexed one among medical authorities. Of one fact, however, all are informed, and in which all agree—the fatal nature of the influence they exert on children. At this season of the year, the attacks of worms are most frequent as well as most dangerous. We take great pleasure in directing the attention of parents to the Vermifuge of Dr. M'Lane. It is one of the most extraordinary medicines ever introduced to the public, and has never failed of success when tried.

Purchasers will be careful to ask for Dr. M'Lane's Celebrated Vermifuge, and take none else. All other Vermifuges, in comparison, are worthless. Dr. M'Lane's genuine Vermifuge, also his Celebrated Liver Pills, can now be had at all respectable Drug Stores in the United States and Canada.

◆

Liver Complaint.—The only remedy ever offered to the public that has never failed to cure, when directions are followed, is M'Lane's Liver Pill. It has been several years before the public, and has been introduced in all sections of the Union. Where it has been used, it has had the most triumphant success, and has actually driven out of use all other medicines. It has been tried under the different phases of Hepatis, and has been found equally efficacious in all.

☞ Purchasers will be careful to ask for Dr. M'Lane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills, also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by P. F. PESCUD, Raleigh, N. C.

DeBURG'S No. 1.

SUPER PHOSPHATE OF LIME.

THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity, from one Bag to any number of Tons. Price, when one ton and over is taken, $45,00 per 2,000 lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

BORUM & FISHER,
Sole Agents,
Norfolk, Va.

SAMUEL R. BORUM. HENRY W. FISHER.

FARMER'S HEAD QUARTERS.

BORUM & FISHER, DEALERS IN BAR AND Bundle Iron of every description, for Farming and Manufacturing purposes. Horse Shoes, Nail Rods, Cut and Wrought Nails and Spikes, &c. Manufacturers of Agricultural Implements and Farming Tools generally, Horse Powers, Threshing Machines, Bamborough's and other celebrated Wheat and Corn Fans, always on hand. Also, Fresh Garden and Field Seeds. Our Catalogue and Almanac is published the first of each year, and may be had gratis, at our New Agricultural and Iron Depot and Seed Store, 11, Water Street, Norfolk, Va.

C. LUTTERLOH,
NURSERYMAN AND FLORIST,
Fayetteville, N. C.

HAS Just received a large lot of Hardy Evergreens, Ornamental Trees, Roses, Shrubs, Raspberries, Strawberries, Bulbs, Grapevines, Green-house plants, Fruit Trees, &c.

Persons desirous of ornamenting their grounds and gardens, will find his stock very select.

The Chili Pine, Cryptomeria, Deodar Cedar, Cedar of Lebanon, &c., standing at the head of the Evergreens.—The celebrated Giant of the Battles, Cloth of Gold, &c., among the Catalogue of Roses, will be supplied to applicants.

Orders will receive prompt attention.

P. S.—Plants can be sent to Wilmington by Steamboat for persons near all the Railroads.

Febuary, 1854. 10—tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance; six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

For analysis of soils,	$5 00
Writing out analysis,	5 00

JOHN F. TOMPKINS, M. D.

A CARD.

JAMES M. TOWLES, General Agent for the sale of Agricultural Implements, and Farming Utensils, &c.

N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

WM. ALLSTON GOURDIN,
Factor and Commission Merchant,
NO. 73 EAST-BAY,
CHARLESTON, S. C.,

IS prepared to make liberal advances on Consignments of Rice, Cotton, Corn, Sugar, Flour, Grain, Hay, &c. Agent for "Genuine Peruvian Guano" for the States of South Carolina, North Carolina, Georgia, Alabama and Tennessee. Also, Agent for Baltimore and Southern Packet Co.'s Steam-ships.

November, 1853. 8---

WM. H. TAPPEY. WM. C. LUMSDEN.
TAPPEY & LUMSDEN,
Iron and Brass Founders and Machinists,
Opposite Jarratt's Tavern and Southern Railroad Depot,
PETERSBURG, VA.
(Cash paid for old Copper and Brass.)

RAILROAD CARS, Axles, Wheels Self-Oiling Boxes, &c.; Tobacco Presses, Mills, Cotton Ploughs, and Knives; Cast and Wrought Railing; Steam Engines, Vertical and Circular Saw Mills, Grist Mill Irons of every description, Shafting and all kinds of Machinery, Wagon Boxes, Bells, &c., &c.

November, 1853. 8---

NEW COTTON GIN!!!
Superior to any now in use.

THE inventor of the new Cotton Gin, known as "S. R. Parkhurst's Patent Cylinder Gin," after having spent three years, and a vast amount of money has succeeded in perfecting the Gin, so that it can now be offered to the public, with full confidence in its superiority over every machine for cleaning cotton from the seed.

The great value of this machine consists in this; that it leaves the cotton open and free, does not cut or break the staple, but rolls it off the seed in its natural state *making* the lint with from *one to two cents per pound* more for the manufacturer, *by actually bringing* that advance in market The machine will not saw or cut the hand of the operator, and will not catch a stalk, stone, nail, or any hard substance, but throw them out with the seed. The company who own the right for making and selling this Gin for the State of North Carolina, are now manufacturing a large number and are prepared to fill all orders, giving a full guarantee the Gin *will do good service, both in quantity* and quality.

The Gins will be delivered at the Depot nearest the purchaser, and will be set up between this and the next ginning season, *to be paid for when tested, provided they give satisfaction.*

Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

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JOHN F. TOMPKINS, M. D., Editor. **Wm. D. COOKE & Co., Proprietors.**

Miscellaneous.

MANURES—PROPER DEPTHS FOR BURRYING THEM.

No subject connected with Agriculture is more misunderstood than the above, and simply because part and not all the laws connected with the retaining powers of the soil and of the actions of the roots of crops are taken into account.

First then, as to farm-yard and all other analogous manures, and their actions, the following facts should be borne in mind:

All fertile soils contain carbon, alumina, sand, and the various inorganic requirements of plants, and these latter (inorganic requirments) are in part freed from their prison houses, (the internal portions of particulars) by the chemical actions consequent upon the decay of decomposable manures.

Putrescent manures, those of vegetable and animal origin, as they decompose, assume the gaseous (air like) form, and as gases, are either absorbed by the soil, or rise and escape from it into the atmosphere. That these decomposable substances do not descend into the soil to any material distance, either when in solution in water or in the gaseous form, is proved by the following facts, well known to all observing farmers:

If an old barn-yard be dug to a depth of three inches below where the earth has ever been disturbed, the soil will be found to contain no portion of the decomposable matters carried down in solution.

If the brown liquor of a barn-yard be poured on top a barrel of earth, and suffered to filter downward through the mass, the color, odor, and all other matters of a putrescent kind will be abstracted from the solution by the soil, and water, colorless and inodorous, will run from the bottom of the barrel. If the soil had not this property, water from wells could not be drunk, as the soluble portions, consequent upon the decay of vegetation, would all pass down into the wells, and render the water useless as a beverage.

Now what is it in the soil which exerts this curious influence? simply the carbon and alumina which it contains, as it is proved by the following experiment:

Fill three barrels with pure sand, entirely free from all other substances. Leave one of these barrels of sand in its natural state; to another add five per cent. of finely divided carbon, (charcoal) evenly mixed throughout it; and to the third, five per cent. of alumina (common day.) Bore small holes in the bottoms of these barrels, and then pour the brown liquor from the barn-yard on top all the barrels, the brown liquor will pass through the barrel of pure sand unaltered, its color will remain dark, and its odor offensive; but that which runs through the barrels containing charcoal or clay, will have lost both color and smell, clearly showing that to these ingredients the soil owes its property of retaining the requirements of plants from solutions. It is true that some other ingredients in the soil have similar powers, but to a very limited extent, as compared with carbon and alumina.

The next question which naturally arises is, will these constituents detain gases as readily as materials in solution. The answer is, yes; and the proofs equally simple. A wire sieve suspended in the upper part of the well-hole of a privy, and of its full size, and filled with charcoal, will receive and retain all the gases as they rise, so as to render the privy inodorous. A coating of charcoal on a compost heap, if sufficient in quantity, will receive and retain all the escaping gases, and alumina will do the same if divided with some other material, so as to present a sufficient amount of clay-surface to receive the gases. Night-soil, when mixed with charcoal or clay, is rendered entirely inodorous, and indeed, when mixed with decomposed muck, which contains carbon, the same effect is produced. The refuse liquor of gas-houses, when thoroughly stirred in a magma or semi-solution with clay loses its peculiar odor, and is thus the best manure, and in the best form to apply to poor, sterile, sandy soils. Carbon, (charcoal) when mixed with this fluid waste, in the same way, produces a similar result; and even woods-earth, headlands, from the amount of carbon they contain, are good deodorizers.

If a quantity of charcoal dust be heated red hot, and then suffered to cool in a close vessel, be afterwards divided into two parcels, the following experiment may be made, which will clearly establish the fact that carbon is capable of absorbing gases.

Exclude one half the carbon from the atmosphere; place the other half in a sieve, and suspend it over a fermenting manure heap for a few hours, then apply these two portions of charcoal to separate pieces of land, of the same quality, and containing the same crop. The result will be, that the charcoal charged with the gases of the compost heap, will cause much greater growths to occur than will be observed from the other portion, not so treated. The same results will occur with alumina, (clay) when mixed with a permeable divisor, and placed where fertilizing gases can pass through the mass.

From the foregoing it is then evident that when manures decompose in a soil, fairly charged with carbonaceous matter and alumina, that portions in solution do not filter downward to any material depth; and after assuming the gaseous form, that these gases cannot pass upward through such soils into the atmosphere, but are retained for the use of plants, if the manures from which these gases arise are at sufficient depth for the rising gases to meet with a sufficient number of particles of the absorbing materials before their reaching the surface.

The proper depth then to which manures should be buried in the soil, must depend in part on the quality of that soil. If the surface-soil be thin and underlaid by a pure sand or gravel as a subsoil, then, of course, the manure should not be so deeply buried as to lose their soluble portions in this sand or gravel, but should rather be underlaid by a few inches of soil, so as to absorb the soluble portions of the manure.

In a sandy surface soil, having but slight quantities of carbon or clay, manures, as a general rule, should be more deeply buried, so that the resultant gases may be all absorbed before their escape at the surface; while in black, (carbonaceous) or clayey loams, a less depth will secure the desired results.

There are many other facts, however, which the judicious cultivator of the soil must take into account before deciding on the depth to which he will plant his manures. Thus the market gardener, who averages three crops in the season from the same soil, must place part, at least, of his manure near enough the surface to decompose rapidly from the assistance of the sun's heat, atmospheric influence, &c., which will take place at much greater depth, in well underdrained and sub-soiled land; while the farmer who wishes to lay down his land to grass, and would prefer that the action of his manures should be slower, will, of course, bury them more deeply, so that their less rapid decomposition will ensure a longer continuance of his meadow. Indeed for perennials, the depth for burying the greater portion of barn-yard manures should be increased as compared with annuals, and even with the latter, the depth of the roots should be taken into account: part of the roots, at least, should be fed at such depths as will secure them from the effects of drought.

The above remarks are applicable to barnyard manure, night-soil, factory wastes of a putrescent kind, and all other readily decomposible materials, but apply with much less force to other kinds of manures.

Manures which are used as top-dressings, stimulants, &c., and which contain volatile portions, should be so prepared before use as to contain within themselves the means of retaining their own gases as rapidly as liberated. Thus a field dressed with a solution of carbonate of ammonia would show immediate improvement, but the effect of the manure would not last out the growing season of the crop. If, however, the carbonate of ammonia be first changed to a sulphate of ammonia, which is not volatile but equally valuable as a manure, then it may be applied as a top-dressing without loss, and it will last until all used by crops. Now, this manure, in common with many others, is not volatile, but is soluble; but as solutions which are not volatile, do not *rise* in the soil, but continue to descend to the depth to which the soil has been disintegrated, and are rendered doubly valuable by intimate admixture with the soil, they should be applied in the most divided form, at or near the surface. Thus Peruvian guano, which contains both volatile and soluble materials, should be first properly prepared to prevent loss by evaporation, and then applied at or near the surface, so that in its descent while in solution, it may come in contact with every particle of the soil and with every root. The Improved Super-Phosphate of lime, and many other manures are not volatile, but slowly soluble, and thus may be applied without additions other than well-chosen divisors to ensure their equal distribution.

We have before given full directions for the mode of preparing guano by admixture with charcoal dust, or black soil moistened with dilute sulphuric acid a few days before use. So prepared, guano will not desert corn before the completion of the ears, nor will it all evaporate from the soil during the growth of a single crop.

These directions should not be confused with deepening of soils by the burying of coarse manures, &c., so as to assist in the admission of atmosphere and the consequent freeing of the inorganic constituents of the soil, which, without such assistance, may remain pent up in the particles without ever coming in contact with the roots of plants, nor with the use of lime, potash, and other alcalies, when used for the purpose of forming the soluble silicates, and not as food for plants in their natural state. Such amendments should always be placed near the surface by simple harrowing, and they will gradually descend as dissolved.—Ed.

ON THE USE AND VALUE OF LIME.

From an address by the Hon. Alex. L. Hayes, of Lancaster, Pa., before the Agricultural Society of York County Pa., on the 7th October last, we make the following extract. In no section of the country has this mineral been more fully tested in connexion with its agricultural value:

"When this country was settled by our ancestors from Europe, they found a virgin soil generally rich in all the elements of fertility. Having cleared it of the timber and woods, with which it was clothed, they broke up the ground and sowed their seed. Year after year, for ages, they continued to plough, and sow, and reap, never reflecting, like a thriftless prodigal, that he who is constantly taking out of the tub, without putting anything into it,—must ere long come to the bottom; as poor Richard said. The effect is, that in all the Atlantic States, there has been a lamentable deterioration of the quality of land; and this we now plainly see, was the inevitable result of the course of tillage we have alluded to—constantly taking from the earth all its crops, and never returning any thing to repair the loss.

"Eighty miles south of where we now stand, there are tracts of land, which one hundred and twenty years ago produced forty bushels of wheat to the acre. One hundred years of this exacting culture, had so impoverished the soil, that the crop was considered good, when it yielded ten bushels per acre. The average, over a large district, did not, according to my early recollections amount to one-half the quantity. No wonder, the inhabitants abandoned their homes, for the far West, and that the population was stationary for thirty years; the emigration, during all that time, keeping pace with the natural increase. Had the original fertility of the land been maintained by a due course of cultivation, this deplorable loss would have not ensued.

"The adjoining county of Lancaster is rich in its mines of iron ore, chrome, lead and copper; but valuable as these mineral deposits may be, they are far exceeded, in that respect, by the lime-stone rocks which are cropping-out and showing themselves, here and there, throughout one-half the county. These materials of an inexhaustible abundance of lime, furnish a cheap and ready means of renovating our worn-out soils, of improving still further those which are considered the best, and of fertilizing our comparatively barren hills.

"On a visit, two years ago, to one of our least fertile townships, I was surprised at the flourishing condition of the farms, where the land was naturally so thin and unpromising. The fields were covered with luxuriant vegetation; and the buildings, orchard, and fences proclaimed that the proprietors were doing well, and to use an expressive phrase, lived at home. I was told that appearances, in this instance, did not decieve; that within ten years a revolution had been wrought by the use of lime; and that whereas, fifteen years ago, the man who owned forty or fifty acres of land, in that neighborhood, was sure to starve on it, if he had no other resources, now, the owner of such a tract, would grow rich from its products. And in fact, this land, under the new plan of dressing it with lime, produced as good crops as the limestone lands in the rich valley of Pequea. There are other parts of the county where the lands, by the application of lime, have been enhanced in value, from 500 to 1000 per cent. The value, indeed, which has already been added to the real property in Lancaster county, by lime, it is impossible to calculate; and yet the use of it is but fairly begun. I think it is safe to say, that within a quarter of a century from this time, it will treble the annual production of the whole county.

"More than twenty years ago, I was accustomed to pass several times a year, along the road from Reading to Lancaster, and just after leaving a tract of hilly woodland, called the forest, came, in the course of this journey, to a village, now the borough of Adamstown. It lies in a very narrow valley, between pretty lofty hills. The soil is the red sand stone; and it was, at that time, thin and apparently unproductive. The farms in the vicinity might have been purchased, as I have been informed, for $10 or $15 an acre. Ten or twelve years since, they began to lime their land; and two farms in the vicinity, have, within the last three years, been actually sold for $100 an acre. This land is now as productive as any in the county.—Facts like these should convince every skeptic of the value of lime. They are particularly encouraging here, where there is so much land precisely of the kind, on which the application of lime would place an enhanced value of 500 to 1000 per cent. Is there any other means by which wealth can be so certainly, and speedily accumulated? The owner of a small farm valued, say $1000, in two years, may, by an outlay of a few hundred dollars, which will be more than reimbursed in the mean time by his increased crops, find himself worth $5,000.

"In view of such facts, it would be perfectly idle to enter upon the discussion of the question, (if question it may be called) whether lime is a fertilizer, or whether it is beneficial or not. Assuming that it is one of the most important means of improving the soil—in what manner ought it to be applied?

"The quality or condition of the soil, must always be regarded, in determining this question. If it be one of considerable strength, already capable of producing a heavy vegetation and is full of insect life, then, it would seem, the lime should be applied quick from the kiln and ploughed in, so that its action upon the organic substances may be exerted with energy, converting into nutricious sustenance for the crops, the vegetable remains, as well as the living animal matters with which, in so many various forms, the soil is replete. It is known to be very destructive to grub-worms animalculæ, and insects of all descriptions, with which the ground is tenanted; and the soil is naturally made richer by their dissolution. If the soil is thin and gravelly, it may be better to apply it to the surface, as a top dressing and after it has been for some time slaked. Such soils are supposed to require a less quantity of lime, and show the effect of the application more strikingly than those which are stronger. While it apparently gives a greater consistency to the former, it operates upon stiff clayey lands, in such a manner, as to render them mellow and friable.

"Lime has also the remarkable property of attracting moisture from the atmosphere: which makes it invaluable in our dry seasons, enabling the crops to bear the effect of our long summer droughts with comparatively small injury.

"But not only is there a great variety in soils, but also in the constituents of the limestone rock, and consequently in the quality of lime, which is manufactured from it: therefore in order to reap all the benefit derivable from this substance, lime as well as the ground should be analyzed.

"There are some instances, (though these are rare,) in which lime appears to have had no effect on land. A neighbor of mine, while I was spreading lime over my ground, professed his utter want of faith in its efficacy, and on my inquiring the reason, told me, he had applied lime to a farm he lived upon a few years before, lying along the river, near the borough of Washington, and he could not see that it ever benefitted his land, to the value of one silver sixpence.

"Dr. ——, of Pequea Valley, also informed me, that in using lime upon his farm, he had observed that in one of his fields it was perfectly inert, producing no effect at all; this lay along the Pequea Creek; whereas, on the other fields of his place, it was of manifest advantage.

"The true explanation of such facts, I take to be, that these soils had already abundance of lime in them; adding more was therefore, mere superfluity. A proper analysis would have saved these persons their bootless expenditure of money, time, and labor.

"Chemistry, a science of modern growth, has been of incalculable service to agriculture. It has disclosed the fact that lime enters into the composition of all plants, and especially of the cereal grains and grasses. We perceive in this a reason why the deeper soils of valleys and what are called the river bottom lands, with their rich loam, should be replete with this subtance mixed with the soil. Deposited on all adjacent higher grounds by the decayed and decomposed vegetable and animal remains, it is carried down by rains and snows, in the course of ages, and left on the lower. Hence its abundance there, and its scarcity on gravelly eminences and the hill sides. The application of Chemistry to Agriculture has further shown, that there are certain constitutents essential to every fertile soil, though the proportions in which they exist are not determined, and can only be ascertained by many and careful experiments, made for the purpose. The constituents are lime, potash, magnesia, soda, alumnia or clay, silica or sand, humus, iron as a peroxide, chlorine, phosphoric acid, sulphuric acid, and animal vegetable, or organic matter.

"Each of these substances—in some quantity—must absolutely be present; and abundance or excess of any or all the rest, will not atone for the want of it. As to lime, which may appear to be receiving undue attention, it enters into the constitution of all plants and of every part of them, existing combined with various acids in the root, stalk, blade, and grain, or seed. In animals, it forms with phosphoric acid a large proportion of bony structure. Its application therefore is directly beneficial to the growth of the plant, as any food, which promotes the growth of the animal is beneficial: but it is of still further benefit, by aiding the decomposition of vegetable matters in the soil and thereby disengaging the mineral substances they contained when organized, and fitting them for the support of a new growth.

"Lime is also believed to be a powerful solvent of the sand in soils, which contains many of the elements of plants; these being set free by its action, minister to the growth of vegetation. This, by many is regarded as one of its most important properties. As a fertilizer it combines qualities not often united, being not only rapid and powerful in its action, but it is also durable. Many are the instances, in which its effects have been visible for more than twenty years after it was applied. In this respect, it excels all other manures. In most of them, indeed, it enters more or less largely as a component part, whether they consist of animal or vegetable remains. It is a material constituent of the most costly of the concentrated fertilizers.—It is recommended by its cheapness and its adaptation to all sorts of lands, for with extremely few and rare exceptions, it is never applied without essential advantage; it is particularly commended to the farmers and land owners of York County, as affording the ready and sure means of rendering the thin, gravelly, unproductive soils of your hilly townships as productive as those of your fat luxuriant valleys. Though we have suggested some consideration for determining how it should be applied, yet it certainly is a characteristic of lime, that apply it how you will, whether as top-dressing or ploughed in with the seed, whether fresh from the kiln or after it has lain for weeks and months exposed to the air—under all circumstances—it is beneficial."

INTERESTING FROM THE CHINCHA ISLANDS.

We have been favored with the perusal of a private letter from the Chincha Islands, dated the 19th February, which contains some items of public interest, which we are permitted to copy.

There were at the Islands, at the date of the letter, one hundred and sixty vessels of all sizes, from 300 to 2,200 tons burthen—averaging probably 800 tons. The estimated average time for loading with guano was forty days.

The rate of exportation of guano from the islands is said to be 1,000 tons a day, which it was thought would not exhaust the heap in ten years. A geological survey, made by order of the United States Government, had estimated that eight years would exhaust the supply. We extract from the letter as follows:

There are three of the Chincha Islands, lying in a line, N. and S., the passages between them being less than half a mile. The wind is always S. and E. and it is never known to rain. The north island is the largest. It is nearly circular and about one-third of a mile in diameter, and about one hundred feet high. Some parts of the coast are steep high cliffs, and others sandy and rocky coves of gradual ascent from the shore. The heap of guano continues to deepen to the highest point of the island, where it is one hundred feet in depth. Fancy a large, old fashioned loaf of brown bread, laid on a table but little larger than the base of the loaf, and you can pretty nearly see the pile of guano on either island. The laborers commence digging and proceed along the top of the rock in the direction of the centre, from all parts of the island; and therefore, in their progress, have shown the guano in a very steep side from the base rock, eighty feet high; and from every part it appears to be the same substance—hard and close.

Every spoonful is dug with a pick, and whe loosened is as dry as powder, and of course dusty If left in a pile but a brief period, it again becomes hard, and must again be loosened with pick, from the base to the top are found feathers eggs, and stones of all sizes, some weighing even two or three tons. I have taken out man perfect feathers, far from the top; and near an upon the surface have seen what appeared to b bone and flesh decomposed.

It is thought the pile now called guano, is th decomposition of sea animals, of which ther are multitudes now, and they are presumed t have been far more numerous in ancient day before the white man came to destroy. Se lions of a large size—a ton weight—seals an endless quantities of sea fowls have been the inhabitants of these islands for myriads of years and the islands have been the burial places of these animals; for if wounded they crawl up to the top—so say the knowing ones. Birds and bird lime go to increase the pile. Guano is really decomposed animal matter, but whether this was the way so vast a pile accumulated, or whether the islands were thrown up from the bottom of the sea with the deposit upon them, you must judge for yourself.

The second island is similar in size and pile to the one described. The third one has not been touched yet. It is much smaller, but well loaded. Guano secretes large quantities of ammonia, and confined as it is in a ship's hold a man cannot stay more than five or ten minutes at a ime-among it. Besides large lumps of pure ammonia, are daily found apparently decomposed bones, eggs, &c., and among other items a man n a perfect state of preservation—the real ammonia, strong as volatile salts.

Now do you wish to know how all those hips are loaded, and a thousand tons per day lug and sent from the islands? Well, there are bout 100 convicts from Peru, and about 300 hinamen from the Celestial Empire. The forner are in the right place; the latter were pasengers that engaged passage in an English ship or California, and engaged before they left their wn country to labor after their arrival for a mited time to pay their passage ($80.) Inead of being landed at California, the ship rought them direct to this place, and the capin sold them for three and six years, according the men, to work out their passage; and here ey are slaves for life.

They are allowed four dollars per month for eir food, and one-eigth of a dollar per day for eir labor, with a pile of guano before them hich will last the next ten years; and long bere it is exhausted the majority of them will dead. Each man is compelled to bring to e shoot five tons of guano per day. A faile thereof is rewarded with the lash from a rong negro; and such is their horror of the sh, and the hopelessness of their condition, at every week there are more or less suicides. the month of November, I have heard, fifty the boldest of them joined hands and jumped from the precipice into the sea. In December there were twenty-three suicides. This is from one in authority. In January quite a number; but I have not learned how many. I was a few days since on the South island, and there saw two of the most miserable starved creatures.—They had swam across on their wheelbarrows, and fully determined to die. I could not feed them, and my heart ached for them; so after we reached the ship a boat was despatched with bread and water for their relief. Perhaps this availed nothing for they must either return, or some one must feed them daily.

The Chinese, it is said, are educated to believe in the transmigration of souls, and therefore think if they leave this life they shall return to their own country. It is thought this faith induces them to leave their wheelbarrows and commit suicide.

Thus by diminishing the number of laborers, the exports are reduced, and to meet the demand of so many ships, two English ships, (one of which has been here before) are soon expected with other loads of passengers from the Chinese dominions, deceived, most probably, with the idea of going to California to dig gold. In fact, it is said, the first batch of Celestials had dug many days before they were undeceived.

The process of loading the ships is either by placing the ship close to a steep, rocky cliff, and have the guano run through a large canvas hoes from the top of the hill into the ship's hold.—500 tons per day are put on board by this method; and as there is seldom much wind or swell, a ship can lie very well. Boats that go under smaller shoots, are sometimes loaded and returned to the ship, where it is taken on board in tubs made of barrels—*Boston Traveller.*

From the American Cotton Planter.

BLIND STAGGERS.

Dr. Cloud—*Dear Sir:* The opinion has somehow obtained, which we consider altogether preposterous, that the disease affecting horses in this western region, called the Blind Staggers, originated from feeding this noble animal upon *new-ground corn*, and by consequence is located in the stomach. We have often thought

that so useful and indispensible an auxiliary to our comfort and convenience deserved a better fate than to be turned out to such *pretenders* as farmers generally are, to be butchered and handed over to feed the cormorant expectations of hungry crows. How can a disease be cured by handsful of this weed, that and the other, called by names unknown to any one else except the one who prescribes it? Is this not the case with your books on veterinary surgery? And there is the incompatibility of remedies frequently poured down the poor horses' throats by wholesale. What else can we expect but disappointment from such medication? And the truth is we must understand the pathology of diseases before we can address our remedies for their removal; and this can only be learned in this case of brute animals by the knife, and carefully watching the symptoms through all their phases, from the inception of the disease to its termination. It is true he groans most piteously, but can't tell where the pain lies. Now who has not noticed the symptoms of staggers? At first the horse becomes stupid, and however spirited he may have been before, you will find him reluctant now to move, unless goaded on by the lash, and is quite indifferent to surrounding objects. After a lapse of twenty-four hours, sometimes more, sometimes less, the severer symptoms set in, which are modified altogether by the part of the brain affected and the intensity of the inflamation. If the inflamation is in the cerebrum or substance of the brain, he becomes more somnolent and stupid, at last falls down and cannot be moved even by the action of scalding water poured on the extremities. I opine that these cases are more chronic, and frequently proceed unnoticed until the brain itself becomes degenerated. We have made examinations of the heads of horses who have died in this manner, and have invariably found a fluid degeneration in the ventricles of the brain which resembled molasses, and could be stirred with the finger. We see no chance for remedies here, unless the incipient symptoms could be noticed and attended to in time. In other cases, after the first, or sleepy symptoms, pass off, the horse staggers about awhile and then becomes frantic, and if left to himself will ru
over, or against any object which happens to l
in his way, and frequently dies in convulsio
and lock-jaw—or as the doctors call it, (with
Titantic rigidity of all the muscles) upon e
amining such cases after death, the medulla o
longata, is found principally to be the seat
the disease, and presents on examination t
redness of a live fire-coal, evidently indicating
very high state of inflamation. The same thi
is often observed in the covering of the bra
and, as in the medulla oblongata, gives rise
more violent and acute symptoms. Now,
after an investigation of the disease, from cu
osity and interest of our own, we have establis
ed the fact that the disease is inflamation loc
ed somewhere in the brain, the proper remed
will be easily understood, and if the free use
the lancet applied to both sides of the neck
drawing blood almost to faintness—pour
cold water in a continuous stream on the he
and a brisk cathartic does not cure, then
horse must die. The earlier applied the m
certain, the later the more dubious the result
We hope we have sufficiently impressed
importance, as well as the character of the re
dies to be used, and have been explicit in giv
the pathology and systems of the disease.
will now attempt to enumerate the ca
which, to my mind and experience are m
more plausible, as well as defensible, t
that new-ground corn, or any other feed
could produce it.

Staggers are much more common, it is t
in newly settled countries than in the old o
for the very obvious reasons that whilst in
latter the comfort of our teams are looked a
and they are provided with proper houses a
dry floor and bedding, in the former they
turned into lots frequently without even a s
ter to protect them from the weather; and,
once saw thirty or forty fine mules in this co
tion in the prairies knee deep in mud, I was
surprised to learn after this that my old fr
had lost 1000 dollars worth of mules
spring with the staggers. Now the truth i
move out here to Alabama, or Mississippi,
some one of the older States, in the dept

winter, through the rain, the snow, the sleet, and through the mud, camp out in the open air,—horses have to toil hard over hills and mountains, and boggy roads; we reach our new homes and still nothing provided for the comfort of our noble steeds. Instead of making good stables, we for want of time go to cutting, splitting and hauling rails, and the horses not used in hauling are employed in either breaking up the old lands, or turning over the virgin soil, still exposed to wind, mud, weather and labor, until the continued exposure and hardship results in inflammation of the brain, or same of its membrances.

When we came to Alabama, our new neighbors admonished us that we would lose all of our horses, as we had nothing to feed with but new-ground corn. We were skeptical on the this subject. In a few days a faithful old carriage hosse, who had taken the brunt of labor all the way from his less true match, was found one morning leaning up against the wall of a little stable, (rather pen,) and, on attempting to move him from his position, he fell and remained "in statu" until dead. I procured a tenant saw, a mallet and chisel, and having some dexterity at dissecting, we soon removed the upper portion of the skull, when with a sharp scalped we pared off portion after portion of the brain, until we found this degeneration of the brain in the ventricles, and a high state of inflammation of the medulla oblongata. We knew, as the saying is, this was a cholera case. On riding out a few days afterwards, on a noble and spirited Canadian saddle horse, we found him both lazy and stupid; and on returning, after a short ride, I took one gallon of blood by measure from his neck, and after it became cold, the buffy coat was fully an inch thick, and as tough, almost, as leather. This satisfied me that I had taken the right steps. I proceeded to bleed all the rest, some ten or a dozen, still feeding on new-ground corn, but lost but the one horse, who died without treatment.

It is said that "an ounce of preventive is worth a pound of cure," and would recommend all work animals to be bled in the spring, and after they finish the summer's toil. Try it planters, and you will be better pleased with its philosophy and results than even Dr. Cartwright's premedication for the prevention of cholera.

We have hastily assigned the probable cause; now we propose to show that corn has no hand in the matter; and fearing that we may tire out your readers, propose to be brief, and will merely state facts.

An acquaintance in our old neighborhood in South Carolina, after finishing his crop, fell to brick making to build a dwelling—turned in all his team into the clay-hole. It is, you know, hard work, and the feet all the time in the mud, exposed to a burning sun in August. After making some 150 or 200,000 bricks,—no new-ground corn, remember, but a plenty produced on old red lands,—his horses commenced with the staggers, and he nearly lost them all. At that time, as well as I can remember the remedy was to split the skin in the forehead and slip in a clove of garlic, and to ram a sharp stick up the nose. No wonder that the horses died! Now as to the feasibility of this cause it falls to the ground: it is utterly nonsensical and untenible.

One word on occasional experience as to the antiphlogistic treatment. I have seen two animals affected at the same time; whilst one was being bled, and the effusion of cold water going on, the other sloped off, got into the fields. The first horse recovered, the latter died.

I once visited a friend and relation who had a fine pair of roans, which he highly esteemed. The first bad news he announced was that one had just died with the staggers and the other was a cholera case. He had a clever physician living with him, who applied to the former a red hot hoe over the region of the stomach, with the view of producing counter irritation, he himself thinking that the stomach was at fault. It was during the rage of Bronserism, when the doctors hunted for every thing in that viscus.—I proposed for us to go and look at the other.—He was reeling about. We made two stout negroes hold on to him and opened the jugular on both sides, and sent for a bucket of cold water, and commenced turning it on. By the time the horse had bled something over a gallon, and perhaps a half, he actually stooped down in search of something to eat. He got well without any other treatment.

These are a few facts, out of many. We offer them for what they are worth, hoping to subserve a good cause, and aiding in trying to remove the mists from the eyes of those who, to say the least, are misguided in their efforts to save this noble and useful animal from worse than butchery. O. K.

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From the American Cotton Planter.

Dr. Cloud—*Dear Sir:* I promised in my last letter to defend, through your pages, the position that it was not the true interest of the Slaves States to monopolize the manufacturing of what they produce. While casting about for some thoughts on the subject, I find among articles prepared by me for publication, a year or two ago, this position was made and discussed; opposed to which, I have not seen any thing satisfactory. Hence, instead of making new points of defence, I send you extracts from those papers, although my taste is opposed to travelling over old mental ground.

1st Extract.—The Planting States consume much of the products of the Middle States, which is made by the same description of labor that we employ. If we were to raise all that is used of bagging, rope, bacon, mules, flour, tobacco, &c., employment in the Middle States, for slaves, would be greatly lessened; and, as at present, the surplus would be brought to the Planting States, either on sale or to work. Their places would be filled by immigrants, until by the force of the ballot-box, they would all be transferred to the Planting States; thereby imitating the philanthropic and illustrious friends of their slaves, (the Northern States,) which preceded them in this self-sacrificing example to emancipate themselves from their slaves. With such, our political debility would increase, and our already contracted area for the growth of the slave population, diminish. That it is the interest of the Cotton States to retain their control of cotton making, no one will deny;—which is to be done only by making all the world needs at a lower price than it can be produced in other countries; and that want is limited only by the supply, be that what it may, we have the assurance that it will be called for; hence the largest regular supply that the Planting States can furnish, must be their true policy, although it should be to the extent of driving all others engaged in it to seek employment in raising provisions, &c., to exchange for our cotton. When we fail to supply the demand, encouragement is given to its production in other countries, and if they fail, expedients will be resorted to, such as mingling other fibres with cotton to make up the deficiency; and when introduced successfully, and we are enabled to make a surplus, it will be time enough for us to adopt the expedient of farming and planting in connection. And that, too, will be the time when the beautiful theory of bringing the mills to the cotton fields, will be seriously entertained by planters, and I trust they never will encourage cotton mills in the South, to any great extent, until they find it to their interest to work the slave population in them; to invest in cotton mills with the view of inviting a population to work them whose sympathies are opposed to our institutions, merely to multiply consumers would be the most certain means of planting a fulcrum on which the C. M. Clay lever would be applied to the pulling down of our institution of domestic slavery. By these mills employment would be furnished to the thousands that immigrate from the Old World, and if wages should be better, multitudes from the abolition regions, bringing with them the seeds of fanaticism—some to work the mills, others to make supplies. Thus the material would be prepared for the realization of a sentiment expressed by a vevy sensible man, "if ever the institution of domestic slavery is destroyed, it will be alone at the ballot-box." It has been my settled opinion for some time, that the institution was more in danger from the timidity and inconsistency of its owners, than from the resolution and action of its enemies.

2d Extract.—This being effected, the friendship of necessity, by which capitalists at a distance are bound to our institution cf domestic slavery with the strength of cables, comparable in numbers with the fibres in a bale of cotton, will be severed. The same argument is applicable to the syren song of establishing mills at the South to manufacture the most of the cotton with slave labor, which will not be done, nor will there be less cotton planted, until planters are convinced that there is more made than is wanted, at a lower price than it can be produced for in other countries; although it were to require our entire resources; acting on the same principle that an editor or merchant does, in neglecting to raise their supplies, in consequence of its interfering with regular business, and as they do depend on the market for them. Dispense with the world's necessities for the few staple articles produced by slave labor, and the days of the institution would be numbered; for to the popular and falsely called moral and religious influence would be added capital to render it valueless, or to overrule and abolish it.—The South may esteem it a humiliating reflection to admit that we hold our property in consequence of the necessities of others; yet we have many parallel examples in the strong of individuals and governments protecting the weak alone from their present or future necessities; hence I advocate, as the true policy of the South, to rear a rampart of cotton bales; and, as on the memorable 8th of January, use them as a potent means to perpetuate and enforce commercial friendship and manufacturer's respect, although it should require all of the suitable planting lands to effect it. Again, cotton is the only article known that can give content and profitable employment to the mass of our laborers; hence the necessity of monopolizing its production, although we should have to ex change it for provisions or of luxury. The introduction of mills into such locations as are not adapted to the raising of raw material, and to give employment to the surplus population found about our cities and villages, would be commendable; but to carry them to the plantations, is an unrealizable delusion, and must be referred to selfishness or fogyism.

MARENGO PLANTER.

Linden, Ala., June 5, 1854.

CHEAP EXPERIMENT IN DECOMPOSING BONES.

The value of bones as a manure, ground or pulverized, and more especially dissolved and formed into superphosphate of lime, is now just beginning to be appreciated by the practical agriculturists in this country, as its beneficial effects, upon root crops particularly, have come to be known by experience.

Formerly bones were only regarded among us as a nuisance, to be thrown in the street, or to be dumped into some hole with the skeletons of old tin pans and kettles, broken pots, &c.,—and the carcasses of defunct cows and horses were carted away into some lonely swamp, or distant in the woods; and not till they had obtained an export, for several years, from this country, by our English brethren, did it occur to the American cultivator that "old bones" could be of any possible use.

But when our good farmers began to feel that the saving of manure was a thing of such vast importance, and that the barn-cellar—as my old grandfather used to say to his gardener—was their "jewel box," then they began to look aronnd them for material; and leaves, sods, ashes, pond-mud, peat earth, oyster shells, bones, &c., came in use to encourage and aid a more enlightened economical farming.

Yet still, a great obstacle in the way of the more generous use of bones, is the expense and difficulty attending their pulverization or decomposition. However prudent a farmer may be in collecting and saving bones, skeletons and carcasses, if there is no "bone mill" anywhere within a dozen or twenty miles of him, he is no better off for manure than before; as it is well known, that half a century may pass over them in an unpulverized style without very much of their nutricious qualities being extracted even during such a lapse of years. Again, the expense and laborious care of decomposing them with sulphuric acid or vitrol—especially to the majority of farmers, who are not accustomed to such delicate jobs as handling sulphuric acid, and making nice experiments with chemicals—discourage the mass of them from attempting to go into the manufacture of "home made superphosphate of lime."

Hence it becomes an important inquiry, especially as this manure is found to be so valuable, whether some cheap and easy way of decomposing bones cannot be discovered, for the benefit of the common farm.

Without alluding to other experiments, in regard to dissolving bones in strong lye, &c.—that have been partially successful, I propose here, in as few words as possible, to describe an experiment, made on a small scale, with bones and horse manure, that may lead many readers to still further experiments, and at length end in some important practical result.

An intelligent and thoughtful neighbor of mine, Mr. Edward Willis, a soap manufacturer—whose father has taken a great deal of interest for many years in agriculture, especially in the application of ashes to light worn out lands, and from whom our great neighbor, the late Daniel Webster, used to procure hundreds of bushels of ashes a year for similar lands—recently made an experiment of this kind. Taking a quantity of bones, none of them, perhaps, larger, and most of them smaller than a man's two fists, he made a good layer of fresh horse manure, on which he placed a layer of bones, then another layer of manure, then a layer of bones, and so on, to the top, covering the heap over well with the manure. It lay somewhat longer than he intended, and was allowed to become, to some degree fire-fangled, but the bones were utterly decomposed, disintegrated and dissolved. So that the whole heap had become a homogeneous mass, and you could not even detect any bones in it. Now, why would not this manure be equal to ground bones—be nearly or about as good as any of the super-phosphates—even, the "improved super-phosphate" of our delightful and scientific friend, Professor Mapes, which I have found very valuable, especially in its application to my root crops, pear trees, &c. Mr. Willis, thought in a further experiment, that he should either manage to moisten the heap, or else not allow it to remain so many weeks undisturbed; and I suggested to him the advantage of covering over the whole mixture at the very commencement of such experiments with charcoal, peat earth, plaster or some absorbent of ammonia, and then after the decomposition of the bones had been effected to mix it in with the rest of the heap.

I have thus written out an account of this experiment, so very successful, as far as dissolving the bones is concerned, as a matter of suggestion to others, and with the hope that it would induce some of our practical farmers, at times of leisure, to try the same experiment, and after they have made application of the manure thus manufactured, to give to their brethren through the medium of the *New England Farmer*, an account of its fertilizing effects as compared with other composts. J. B.

REMARKS.—Capital. This will be the means of cleaning up many a door yard, as well as doubling the turnip crop.—*N. E. Farmer*.

SCARIFYING THE SOIL.

Every farmer is aware that the frequent stirring of the soil is of material benefit to crops; for however deep may have been the original disturbance of the soil, or however great the quantity of fertilizing material used, still the falling of dews and rains will re-arrange and compact its immediate surface, so as to admit a less amount of air than if entirely free and broken.

This is clearly proved by the fact, that during the severest drought corn or root crops may be preserved by the frequent stirring of the immediate surface. The dews penetrate such disturbed surface readily, and pass down sufficiently deep not to be dissipated by the next morning's sun, while the large amount of air passing into the disturbed soil, deposits its quota of moisture on the colder particles below, and thus insuring a sufficient amount, both for the supply of the crop, and the solution of the necessary materials as its food. It is for this reason, among others, that induces farmers to continually disturb the surface-soil.

Until a very late date this has always been done by small plows and harrows, but more recently, varieties of tools have been invented for this special purpose, and we now have cultivators and harrows, so constructed, that we may by horse-power cultivate the spaces between one or more rows at a time, varying in distance from ten inches to four feet.

The market gardener has greater use for this surface disturbance than the farmer; for he uses manures more freely, and to have maximum crops he must not only keep the surface of the ground between the rows of plants entirely free from weeds, but to insure the proper decomposition, and the appropriation of the full amount of amendments used, he must admit into his soil a maximum quantity of atmospheric air and secure himself against drought.

Harrows, hoes, and cultivators, are now much used in the cultivation of corn. Indeed, the cost of raising this crop has been materially lessened by their use, and instead of abrading the early formed roots, and calling on the plants to form new ones, the plan now is to raise our corn and root crops in deeply disintegrated soil, letting the after cultivation entirely consist in the disturbance of the surface by the use of a single horse and hoe, and an appropriate tool.

The hand hoe is fast going out of use. Flat cultivation for potatoes and corn, and the frequent disturbance of the surface-soil between root crops, have rendered the surface-disturbing tools almost as important as the plows themselves; and the harrow, which should never be used for the purpose of breaking soil, but simply for the removal of such things as could be combed off the surface, is rapidly giving place to the cultivator. The tooth of the former has its point downward, and hence its frequent travel upon the soil's surface tends to compact it, while that of the cultivator, having the lower end of the tooth the largest, has all its action upward and outward, and materially tends to lighten the soil, while it renders it pulverulent.

Where even surface tilth is required before planting, as in machine planted crops, the combined use of the roller and cultivator, has taken the place of the harrow and the hand rake. Indeed, a few years have tended materially to lessen the amount of hand labor, and we may hope to see the day when farmers will not be called on to handle small tools for the disturbance of their soils.—*Working Farmer.*

THE RESTORATION BY REST OF EXHAUSTED LAND.

Our readers are well aware that we have always preached the doctrine that true rest of the soil was a proper rotation of crops; and therefore in referring to the above subject we do so only with a view of illustrating principles, and not as recommending as a rule the bare fallowing of soils for a great length of time.

It is true that many soils may be materially improved by the rest of a single season. Among these will be found gravelly soils, containing large amounts of organic matter, not decomposed, and requiring the direct heat of the sun on a soil not protected by a surface-crop to encourage their decomposition. The advantages arising to future crops by such treatment must therefore be evident. The inorganic matter contained in these roots so decomposed during the rest, as well as the organic matter, go to furnish the natural conditions for the receipt of ammonia from the atmosphere, its retention from descending rains and dews, and its secondary effects in producing the necessary chemical changes upon the soil for the liberation of its inorganic constituents.

Soils that have been long used for wheat growing become denuded of that portion of the potash and phosphates resident upon the surfaces of particles. It is only by rest, or green fallowing that such soils can be restored in localities where manures of the proper sorts are not attainable, and it is only in such localities that rest of soil, once under cultivation, can with propriety be recommended. The amount of alkalies consequent upon the decay of organic matter, furnish the means for the formation of soluble silicates, and hence the liberation of such inorganic materials as inhabit the ultimate particles of the soil thus denuded of their outer coatings, and producing new surfaces to supply vegetables with food.

Thus some of the coarse soils in Massachusetts, although containing all the inorganic requirements of plants, refuse to grow crops each year successively, simply because the soluble portions of the surfaces of the particles of the soil become removed by plants more rapidly than new portions can be rendered soluble for their use. Rest then causing the combined effects of chemical decompositions, heat, atmospheric air, &c., will liberate new portions of potash, soda, lime, magnesia, phosphoric acid, &c., &c., and it is for this reason, that lands, apparently exhausted, after two or three years' rest, will produce good wheat crops. In most localities, however, the missing ingredients of the soil, required by the crops may be added, and in such quantities as to supply the current crops, while nature's laws are setting from the undecomposed or undisintegrated particles of the soil, and as these amendments are of less cost than the value of crops, they may be taken from the soil by the use of such amendments, without materially deferring the time when natural causes will render the soil self-effective.—*Working Farmer.*

Farmer Pennywise and Farmer Poundwise.—There is a farmer Pennywise with whom I am acquainted, who will occasionally raise a good heifer, steer or colt for his neighbors who keep good breeds, and he is by accident occasionally benefitted thereby. When he has such an animal in his flock, he is apparently uneasy until it is disposed of; and after selling such an animal, a heifer for instance, you may hear something like the following:

"Well, my dear, I have sold the big heifer for fifteen dollars; is not that a good price for a heifer of her age?"

"Good price, indeed!" his wife would reply; "you had better have sold two of them cathammed, crooked-legged, scrawly things that you always keep for cows. The reason that our cattle always look so bad, and that we sell so little butter and cheese, is that you always sell the best heifers."

Poor woman! I pity her. Her pride and ambition are injured, her children and self in rags, because her native industry and economy are cramped by the foolish and nigardly policy of her husband.

The picture is reversed in Farmer Poundwise, who always keeps the best animals until full grown; then, selecting his best breeders for his own use, he sells the rest. If he has a good young horse, he will say that he will make a fine team horse; if a mare, she will make a fine breed mare.

"And what will you do with that?" says his neighbor, pointing to an ordinary animal.

"Between you and I," says he, "I shall sell that colt the first chance. Such an animal spoils the looks of the rest, and will not pay for his keeping."

Thus he will sell his poor steers, heifers, sheep, and pigs, at the first offer. If not sold, he would fatten those that would pay the expense of fattening! Are there any cattle, sheep, or hogs that will not pay the expense of fattening! Reader, take some of each—of the real Pharaoh breed—feed them until fat; keep an exact account of the expenses, and you can answer this question yourself. In this way Farmer Poundwise always has valuable stock; his steers are ready sale, and command a good price; his horses are the best in the neighborhood, and the first to be looked at by purchasers. So with all the animals he raises. Pennywise, on the contrary, is thronged with an ill-shaped, worthless stock, that none will buy or pay the expense of raising; which are continually eating out his substance and making no return. Thus Pennywise drags on a miserable life in the road to ruin, while Poundwise moves easily and happily along in the road to wealth.

Maine Farmer.

Young Ladies.—An astute writer of the present day, very pointedly remarks:

Young ladies, don't let the key of the piano forte make you forget the keys of the storeroom, or let the enlightenment of your understanding prevent you from inquiring the price of candles.

Some of our unsophisticated Misses will turn up their noses very contemptuously and say, bah! begone with your unrefined lectures, they smell of the Dairy and the Tallow Chandler.—Never mind my lassie, you don't expect to live and die an old maid—there's some fellow that will make your heart ache yet, and to no purpose, just because you have devoted most of your time to handling the keys of the piano, to the neglect of the more solid keys, upon which, after all, the most touching tunes are to be played, and upon which rest the honor and glory of a woman. Though there may be isolated instances where the doll baby young lady, after assuming the dignified title of Madam, "turns over a new leaf" and really becomes a good house-keeper, and a thoughtful, diligent and accomplished head of a family, but in most cases a flippant, slothful, (only another name for delicately refined,) vain girl, makes a man a mighty poor help mate—certainly not such a one as our Maker intended man should have when he took that memorable rib from Adam's side. But in all sober earnest, young ladies, if you would be esteemed by your own sex, and loved by the men, (and are there any of you who wouldn't like to be loved by a nice young man?)—in fine, if you would culminate to that high honorable and noble position God intended you should occupy in the drama of life, study the useful arts—study a love for the dignified graces of matronly government—not to the total neglect of the higher accomplishments—but bring the latter in due subjection to the former—adding, so to speak, the exquisite workmanship of the Corinthian Capitol, to the solid substantial beauties of the Doric order.—We are not preaching a homily—we love the young ladies too well to see any of them turned out to graze in the barren field of old maidenhood, and we know a substantial, practical, sensible girl, is just as sure to run afoul of some clever fellow as two and two make four. We don't charge the girls anything for telling them this.—*Milledgeville Union.*

* * *

PROFITS OF SHEEP.—We have published much, from time to time, as to the profits of keeping sheep. We have always been satisfied in our own mind, from the facts furnished in statistics of sheep-keeping, that on lands adapted to the business, there was no branch of husbandry so light and agreeable in point of labor; imposing so little responsibility in point of risk; or so remunerative for the capital invested.

Mrs. Jane A. Morrison, residing in Maine, writes to the New England Farmer, in relation to the profit of a small flock of sheep, as follows:

"The income of my 18 sheep, that I wintered last winter, has been $90 80, the present year. In April I sold one sheep that did not have a lamb, for $4. From the wool sheered from the other 17, I received $31 80, 40 cents per lb. For 24 lambs, I received $55, keeping one of my lambs to supply the place of the sheep I sold."

In Washington county, in this State, there are many large farms devoted exclusively to wool-growing, some of them containing three thousand sheep; and the profits are regarded as greater than could be derived from any other use to which the land could be applied. The wool-growers are generally men of intelligence and respectability, and a friend who was recently among them, informs us that they are enabled to live from their business, in handsome style.—*Germantown Telegraph.*

* * *

THE FRUITS OF THE COUNTRY.—On another page, will be fonnd the circular of the American Pomological Society. We have lived in hopes that the South would start something of the kind, as many of our fruits are dissimilar from those cultivated North, and our soil and climate so entirely different. But so long as cotton is the great Hesperian fruit of the South, we may as well take information wherever we can find it. The native fruits of the South ought to be classified and named, and if the different committees named in the circular, will put their shoulders to the wheel, they may accomplish much towards it. Already do we find a great benefit from the action of the Pomological Congress, in discarding two-thirds of the worthless names upon the catalogues of the nurserymen. Anything so important to the county, as stamping with the seal of approbation a new fruit, or rejecting an old one, is worthy the attention of Southern men. We invite our associates to co-operate with us, and hope they will give us from time to time, such information as the circular calls for, that Alabama may have a showing of its fruits of the earth. We trust all the Southern States will send up a full report.—*Soil of the South.*

THE FARMER'S JOURNAL.

RALEIGH, N. C., AUGUST, 1854.

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John Collins, and Luther Root.

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COLLECT MANURE FOR THE NEXT YEAR'S CROP.

The cultivation of the hoed crops has now been completed, and we hope that the farmers will turn their attention to collecting materials for composing manure for the next year's crop. The means for making manure are in some form or another within the reach of all, let their location be where it may. The farmers in the eastern part of the State have in many places rich marl beds and large quantities of valuable muck in their swamps, which, when properly composted with stable or barnyard manure are highly valuable. The marl and mud are also used in connection with cotton seed in which way a very large quantity of the fertilising properties of the cotton seed are saved. In such parts of the State where these substances do not exist, the same elements are to be found in some other substances. If the farmer has not got marl and muck, he should burn ashes, from which he not only derives lime, but other valuable elements besides, which are highly necessary to the growth of the crops he cultivates. In order to burn ashes profitably, we would remark that the heaps or piles of wood should be small so as not to create so much heat as to destroy a goodly part of the ashes. The ashes should be used shortly after they are burnt, before the rain is allowed to fall upon them and deprive them of the soluble salts of which they contain so large a quantity. They should be composted with the marl or scrapings from the woods, ditches, and fences, and also with stable manure at the rate of fifteen or twenty bushels to the acre of land. The farmer should also keep his stables and barnyard well filled with muck and mould for absorbing the ammonia arising from the manure. The manure from the fowl yard should receive the attention it deserves, it should be composted with ashes and plaster, which makes a manure but very little inferior to guano. The muck pile should be constantly kept well supplied with muck and all the drainings of meat, and the refuse parts of vegetables and the soap suds from washing clothes, should be thrown upon it. This is a most excellent manure for the garden besides preventing the loss of a large number of ducks and chickens while young, which is so often caused by their drinking the salt water which after the meat is washed in the kitchen, is usually thrown out at the door. These are some of the many means of making manure which our farmers have near at hand and can by reading and study learn properly to apply them. This is the time to begin to make manure for the next year's crop, and all farmers would find it much to their advantage to begin early and make much as they can. If a farmer waits to get time to make manure he will never make much—he must make it a regular business as much so as the tilling of his crops, when they require it. Recollect that it does not require as much labor to cultivate rich land as it does that which is poor, to say nothing of the enjoyment that is derived from looking upon a luxuriant crop. Let every farmer resolve that he will not till poor land and only cultivate so much as he can manure, and if he will not have a regular manuring force, such as we have often recommended, he had better hire his hands out and sell the team which he would require to cultivate this land which he knows will not pay the expenses of cultivation. Practice makes perfect in manuring as it does in other things, a man will find that year after year he will increase the quantity of manure upon his farm without any addition of time or force.

LEGISLATIVE ENACTMENT--THE FARMING INTERESTS.

We call the attention of the farmers of the State to the extract below from a letter written us by a highly intelligent farmer of North Carolina. He truly says that our Legislators should establish an Agricultural School, and a model farm, and that then there would be greater need for railroads, plankroads, and other improvements in the State. We say to the farmers that they have the power, they pay the taxes, and if their particular interest is not protected in our legislature it is clearly their fault. It is high time that the farmers of our State were giving some attention to this matter and requiring from their representatives some assurance that the mother interest of our State is no longer slighted.

"Why is it that we cannot have a competent Agricultural Chemist, employed by the State, to visit the different counties, examine and analyze soils and rocks—lecture on the subject of improving soils—superintend a "model farm"—make experiments and publish the results in a farm and at an expense which would render them accessible to all? Is the farming interest in North Carolina so insignificant as not to be worthy of the least notice by the Legislature?

While there are institutions and professorships to intruct lawyers, doctors and preachers, where many a man go to learn the profession of a farmer? While the legislature can find many by the million to construct railroads on which there is nothing to convey, but "persons going north," how is it that not a solitary dollar can be found to instruct us in the "Internal Improvement" of our mother earth, and but a small pittance grudgingly dolled out, "few and far between" for the improvement of the mind?

If "*he who causes two blades of grass to grow, where only one grew before, has done more for mankind than all the heroes, statesman and politicians that ever lived ;*" then why is it that the Farmer's Journal the only Agricultural paper in the State—a State, too, composed of farmers, can scarcely be supported, while political papers can thrive by the dozen? Legislators, look to these things." W. L. R.

Taylor's Bridge, N. C.

OUR PROSPECTS BRIGHTENING.

The subscription list to our paper is rapidly increasing, and we now feel that we shall soon begin to reap that rich harvest of which we have so often spoken. In Wake county alone during the present month we have added nearly two hundred names to our list of subscribers. There are over two hundred thousand men in North Carolina engaged to a greater or less extent in farming, and we are sure that in a short time we shall have a very large number of them readers of the "Farmer's Journal," the only paper in the State devoted exclusively to their interest. We say to those who now read the "Journal" advise your neighbors to take it, and let the valuable information therein contained be spread before the entire farming community of the Old North State. We have traveled over most of the State within the past two years, and have paid such attention to the soils and products of the different counties as to be able to give very correct data upon which the improvement of the wornout lands in them may be based. Recollect that the larger number of subscribers we have, the better will our paper be.

THE UNION AGRICULTURAL SOCIETY.

A short time since there was a meeting held in the city of Petersburg, Va., for the purpose of forming what was to be called the Union Agricultural Society, to be composed of the Southern counties of Virginia and the adjoining counties of North Carolina. What benefit that either Virginia or North Carolina, as States, can derive from such a combination, we cannot see.—That Petersburg would be benefitted we do not pretend to deny, and this was the object which the people of that city had in view when this move was made. We say that we hope that the people of North Carolina will turn their faces against any such combination, and we undertake here to say that the farmers of North Carolina can manage their own State Agricultural Society without asking the aid of Virginia. We might say more of this new institution, but we cannot think but what our people now have some State pride about them, and are not still content to call upon Virginia as they have done for her aid, when any thing new is to be originated.

THE NEXT ANNUAL ADDRESS.

We take great pleasure in announcing to our readers that the Committee for obtaining a speaker at the next State Fair, have invited the Hon. K. Rayner, and he has accepted the invitation, and will, we are sure, deliver such an address as will reflect credit upon himself and his State. His address like that of Mr. Venable last fall will be received with great satisfaction. Mr. Rayner is a ripe scholar, and a practical farmer, and was one of the original nineteen men who formed the State Agricultural Society of North Carolina.

A Prize Worth Having—A Fifty Dollar Silver Pitcher.—We offer the above valuable prize for the largest number of subscribers to the "Farmer's Journal," obtained at club prices and delivered to us on the 18th of October next during the State Fair. Come young gentlemen and ladies, too, here is an opportunity for you to show your devotion to the advancement of the farming interest of your native State. We shall be sure to have the pitcher ready, and whoever obtains the largest number of subscribers will receive it, and the presentation will be made publicly upon the Fair Grounds on the day that the premiums are read out. We shall procure some distinguished farmer in the State to deliver an appropriate address on the occasion. Who is there, either man or woman, that would not feel proud of such a prize gained in advancing such a cause. We would thank our brethren of the Press in the State to give this notice a place in their papers one time.

The Fair Grounds being Improved.—We take great pleasure in stating that the committee of arrangements have made a contract for the erection of several commodious buildings upon the Fair Grounds, and the work is now going on, and no doubt will be in readiness for the next Fair. Instead of five thousand, we hope that there will be twenty thousand persons in attendance at our next Fair. Let every farmer or mechanic who has anything of general interest that will add to the exhibition, bring it to the Fair, and we might say the same to the ladies, but we are well satisfied that they are so wide awake in this matter that it is useless to admonish them.

Communications.

For the Farmer's Journal.

GREEN CROPS AS A MANURE.

Dr. Tompkins: The ideas and opinions of many of our farmers with regard to the action and value of green crops as a fertilizer, are vague and indefinite. Some expect too much and some too little from them without regard to the kind or quality of the soil to which they are applied. That they are valuable for all soils deficient of humas any one may become satisfied who will experiment.

In process of decomposition they furnish a constant supply of carbonic acid, render the stiffest clays light and pliable; while the mould which results from their decay retains the gaseous parts of volatile manures.

But a soil already well charged with organic matter will be injured rather than benefitted by the application of green crops, unless alkalies are used freely to neutralize the acid always generated under such circumstances.

These remarks have been suggested by an

article upon the Oregon pea as a fertilizer which I read a few days since. The writer of that article says that a coat of Oregon peas turned under the soil is equal to a dressing of guano. His land, I presume, contained the elements of guano before, which the plant took up from below and returned to the surface, for it is not probable that it produced them. But upon this point I quote from Leibig who is very high authority:

He says "Woody fibre in a State of decay is the substance called humas. Humas act in the same manner in a soil permeable to air as in the air itself; it is a source of carbonic acid which it emits very slowly. An atmospheric of carbonic acid formed at the expense of the oxygen of the air, surrounds every particle of decaying humas, and is the first and most important food of young plants. We may furnish a plant with carbonic acid. We may supply it with humas in the most abundant quantity, but it will not attain complete development unless nitrogen is also afforded to it, a herb will be formed, but no grain, even sugar and starch may be produced but no gluten. But on the other hand, the supply of nitrogen in the form of ammonia will not suffice, although ammonia is of the utmost importance for the vigorous growth of plants, it is not in itself sufficient for the production of vegetable casein fibain or albumen. These substances are not known in a free state, for they are always accompanied by alkalies, sulphates and phosphates. We must therefore assume that without their co-operation ammonia could not exercise the slightest influence on the growth and formation of seeds; that in such a case it is a matter of perfect indifference whether ammonia is conveyed to them or not, for it will not assist in the formation of the constituents of the blood unless the other conditions necessary for their production be present at the same time." Ag. Cham., page, 179.

"The ashes of the tobacco plant, of the vine of peas and clover contain a large quantity of lime. Such plants do not flourish in soils devoid of lime. By the addition of salts of lime to such soils they become fitted for the growth of these plants, for we have every reason to believe that their development essentially depends upon the presence of lime.

"The supposition that alkalies, metalic oxides, or inorganic matter in general are produced by plants is entirely refuted by these well authenticated facts." Page 76.

My experience confirms the theory of Leibig to the letter I have turned under green crops in every variety of soil. The early growth of crops upon them was vigorous and the size of the straw or stalks much larger than upon land of the same kind to which no green crops had been applied; but the product of grain was the same unless there was an excess of vegetable matter in which case it was loss. But in every instance where I have used alkalies and phosphates with green crops the product has been greatly increased.

A deep rooted plant will doubtless penetrate the subsoil to some extent, and if it contains mineral elements the plant will bring them to the surface where they can be appropriated by crops; but the free use of the subsoil plough will accomplish this and more expeditiously and at the same time add many advantages which result from deep disintegration of subsoils.

BEAUFORT.

For the Farmer's Journal.

Dr. Tompkins: *Dear Sir*—Enclosed you will find one dollar which I believe is your subscription price for your valuable paper. The farmers in this section of the country are much pleased with the improved appearance of your paper. I think it is doing much good in this section of the State; where we have been in the habit of gathering our pumpkins in one end of the sack while we kept a stone in the other to balance; because, so did our fathers. There seems to be considerable interest awakened upon the subject of scientific farming, and we are learning it 's better to take a pumpkin in each end of the bag, and the farmers are inquiring, what says Dr. Tompkins about the change.—Well, we would like to learn many things from you, for, we begin to think really that you are a pretty good farmer theoretically, but some of our clod hoppers say these book farmers like the shady side, but that matters not. If you can, and will give us the desired information, you may remain under the shade, and do more good than many who take the sun.

We are now harvesting, and find our wheat much injured by the rust, rot, and chinch bug. When it is considered that in this section of the country we rely upon our wheat crop almost entirely, at least, so far as our exports are concerned, the importance of some remedy for the above named diseases in said crop may be appreciated.

What is it that causes the rust in wheat—is their any remedy?

What is it causes the black rot (as it is commonly called) in wheat—can it be remedied?

Can their be done any thing to stay the ravages of the chinch bug? they are very numerous in this section, destroying everything as they go. I do hope you will answer through your paper the above inquiries, and I hope these lines may call forth from some one well versed in the business, something that may be of lasting benefit to the farming interests in this section. BEAR CREEK.

Pedlar's Hill, P. O.

* * *

For the Farmer's Journal.

Hertford County,
July 10th 1854.

A LARGE CROP OF WHEAT UPON POOR LAND.

Dr. Tompkins: I have seen this season, the largest crop of wheat raised upon poor land that I ever saw in my life. The wheat to which I allude was produced upon the farm of th Hon. K. Rayner, which is situated about five miles from Winton, on the Chowan river. The name of the manure applied was guano, at the rate of three hundred pounds per acre, and on seventy-five acres of land Mr. Rayner made over sixteen hundred bushels of good heavy wheat. This land has not been cultivated for many years, for it was so very poor that it was thought to be useless to cultivate it. But I cannot believe that this great increase in product is to be ascribed to guano alone, for besides the application of guano, the land was broken up with a double team plow, which had never been done before. Mr. Rayner, with many other farmers in our county, is taking very great interest in agricultural improvement and the good effects are felt among the general interests of the county. There is quite a spirit of rivalry among the farmers as to who will make the best crop, this year, according to the capital and labor invested. Your paper, the "Farmer's Journal," has a wide circulation in our county, and I wish that every one of our farmers were readers of it. I heard a farmer say a short time since that if he could have had your paper ten years since when he first began to farm that he would have been worth twice as much as he now is. I hope, sir that your list is increasing and that ere long the "Farmer's Journal," will be a visitor at every farm-house in our good old State. I say go on in the good work which you have began, and when you have done with the things of this world you will have a name that will never be forgotten by the farmers of North Carolina.

A YOUNG FARMER.

Miscellaneous.

From the Soil of the South.

VEGETABLES AND THEIR COOKERY.

We have long labored to improve the culture and quality of the various vegetables in culinary use. But this labor were vain, unless our housewives, cooks, boarding house keepers, and crack hotels, know how to cook them.

We are led into this train of reflection by dining recently at a first class hotel. The backward spring had made vegetables a rarity. We consulted the bill of fare (which by the way was the water,) and ordered squash. In the interim, our fancy pictured the golden marrowy substance floating on the melted butter. The servant presented a black looking substance. We told him we wanted squash, early squash, that bright yellow, tender, delicious vegetable. This is it, master. Well we thought, possibly there was some new method of cooking it—French, Chinese, or Japanese. At it we went. Sundry things seemed to hold the substance together. Ah! thought we, Chinese squash, for here were the Rat's tails. We are not squeamish; can eat what any body else can. We must confess our first impressions of Chinese squash were not very favorable. But even the enchantment which French, Chinese or Japanese, had last to the taste, was dissipated, when we found the dark color of the squash, came from the iron vessel in which it was fried, and the strings which seemed to bind it together, instead of being rats tails, were bacon rinds—Shades of epicures! What a dish for free born Americans, and a Horticultural Editor to eat! And this is not the only delicate morsal that is ruined by the cooks of the country. All vegetables have a flavor of their own, which the cook should study to retain.

The peculiar flavor of Asparagus, green peas, green corn, tomatoes, squash, egg plant, and salsify, cannot be imitated by art, but is very easily spoiled by the cook.

There are many vegetables that should be cooked so as to preserve the green color. Such as asparagus, spinach, green peas, snap beans, okra, etc., this cannot be done if cooked in iron. Brass, or vessels lined with porcelain, will preserve the green of nature. How often do we see okra as black as ink from being cooked in iron vessels, and green peas that are black peas. It is not the looks alone, but the flavor is not as good as where the green is preserved.

Vegetable Soups.—All vegetables that are put into soups, should be put into cold water, and gradually brought up to the boiling point. This will cause the vegetable to diffuse its flavor throughout the whole mass. Irish potatoes should never be put in soups, until first having been cut up in hot water, this extracts their bitterness, and renders them fit to mingle in the other vegetable mass. The meats to flavor vegetable soups, may be beef, veal, mutton or chicken, and like the vegetables, should be put into cold water. There are fewer good soups made in the country, than almost any other dish, and the reason is obvious; it takes time to cook them. An okra gumbo soup, should boil incessantly six hours, then the flavor of the meat, vegetables, and condiments are so intimately and delicately blended, that they all seem one delicious mass. Salt hardens water and flesh, and should not be put into soups until the mass is well done.

Asparagus.—This delicious vegetable is not yet appreciated in the up-country of the South. Tie the stalks in small bundles, and drop them into boiling water, with a good portion of salt, ten or fifteen minutes boiling is enough. Place some slices of soft toast in a deep dish, and take the asparagus up on the toast, saturate the whole with sweet butter and pepper to taste.

Green Globe Artichoke.—Take off the seed down wash them clean and soak them in cold water, drop them into boiling water with a handful of salt, and boil until tender, which will take some two hours, when taken up, drain them well, and serve up with melted butter.

Snap Beans.—Having taken off the strings, snap them, and drop into boiling water, with the addition of salt, try with a fork, and when tender, take up, and serve up with melted butter or good sweet cream. Many cook snaps with meat. But they are only greens cooked with meat.

Butter Beans.—Having shelled them, drop them into cold water; as the water boils, add salt, try with a spoon and when done, serve up with melted butter.

Beets.—No knife should ever touch a beet previous to boiling; rub the leaves off by hand, for if there is a wound made in the beet, the best of its juices will be lost in boiling. Drop the beets into boiling water with a handful of salt. Most cooks take beets from the boiling kettle and place them in cold water for the ease with which the skin peals off. This should never be done, as they part with one half their flavor. When taken from the pot, let them drain, then peel and slice them, butter, pepper and salt them, or pour good vinegar over, which many prefer.

Cabbages.—There are more ways to cook a fine cabbage than to boil it with a bacon side, and yet few seem to comprehend, that there can be any loss in cooking it, even in this simple way. Two-thirds of the cooks place cabbage in cold water, and start it to boiling, this extracts all the best juices, and makes the pot liquor a soup. The cabbage head, after having been washed and quartered, should be dropped into boiling water, with no more meat than will just season it. Cabbage may be cooked to equal brocoli or cauliflower. Take a firm, sweet head, cut it into shreds, lay it in salt and water for six hours. Now place it in boiling water, until it becomes tender—turn the water off, and add sweet milk when thoroughly done, take up in a colander and drain. Now season with butter and pepper, with a glass of good wine, and a little nutmeg grated over, and you will have a dish little resembling, what are generally called greens.

Cauliflower and Brocoli.—The flower heads of these delicious vegetables, may be cooked like the cabbage, or as the asparagus.—They should be dropped in fair boiling water, taking care not to let them boil too long, as the buds will drop off. Season with butter, pepper and salt, with the addition of a little white wine.

Carrots.—This vegetable is but little used, except in soups; yet they are very palatable and healthy, containing a great amount of nutriment. They should be placed in boiling water, and served up with melted butter, pepper and salt.

Celery.—This delicious vegetable is not generally appreciated, as a cooking vegetable.—Wash the stems clean in salt and water, and drop them into boiling water. After boiling twenty minutes, take up and drain; place some toasted bread in the bottom of a dish, now lay the celery over, and season with melted butter, pepper, salt, and such other condiments as the taste may dictate.

Cucumbers.—Who ever heard of cooking a cucumber? We hear our readers exclaim!—Try it; and then tell your neighbors how well a poor man may live in this country. Take the cucumber just as it begins to turn yellow, peel and slice it into salt and water, drop it into cold water and boil until tender. Season with salt and pepper—mix with batter and fry. Few can tell it from egg plant.

Indian Corn or Roasting Ears.—Who don't know how to cook roasting ears, but if every body does know how to cook them, it is seldom we find green corn upon the table, with all its good qualities preserved. It is no wonder that our negroes are so greedy for pot liquor, when in nice cases out of ten, it contains all the best of the vegetables. Corn boiled in the ear should be dropped into boiling water with salt to season. Corn cut from the ear, and boiled in milk seasoned with butter, pepper and salt, is an excellent dish. Corn cut from the cob after boiling, and mixed with butter beans, seasoned with butter, pepper and salt, makes succotash, a capital dish. Corn oysters is a delicious dish, grate the green corn from the cob, season with salt and pepper, mix in batter, and fry in butter. Green corn pudding is a great delicacy; grate the corn from the cob, mix sweet milk and flour until of the consistency of paste: season with anything the taste may dictate, and bake in a hot oven; it should bake quick.

Onions and Leeks.—Many object to these vegetables, that they are strong, and taint the breath, but if onions or leeks are boiled in milk, they will leave no taint upon the breath. Onions that are to be fried, should first be cut up in cold water, it extracts much of its spirit, and makes them pleasanter to the taste. Take them from the water, and drop them into boiling lard or butter; season as they fry, with salt, pepper, &c.

Egg Plants.—Peel the fruit, and cut them into thin slices, boil in salt and water, until quite tender; drain off the water, and add sweet milk, crumb in toasted bread, and whilst simmering gently, add butter, pepper, &c., and break in three or four fresh eggs; take up before the eggs cook hard, and you will have a dish almost equal to stewed oysters. To fry egg plants, they should be peeled, cut into thin slices, parboiled, then dipped in batter, which has been highly seasoned and fried in butter or lard; either way they eat delicious.

Okra.—This vegetable should be cut up fine for soups; but when it is designed to bring it on the table whole, the stems should be carefully cut off, and the okra dropped into boiling water, if the pods are young, twenty minutes is long enough to boil; take up, draw off the water, add butter, pepper and salt. A good portion of salt should be in the water when boiling. This is one of the vegetables that should never be boiled in iron.

PARSNIPS.—This vegetable bears cooking with meat, better than most others. It may be boiled with beef, pork or mutton. It is also very fine cooked in fair water, and served up with melted butter.

ENGLISH PEAS.—Green peas to be young, and of quick growth; after shelling, drop them into boiling water, with a little salt; there should be but just enough water to cover the peas, twenty minutes boiling, will cook them; just before taking up, add a lump of sweet butter, with pepper and salt to taste; cook them in brass or porcelain.

SQUASH.—The early bush and crookneck, are only fit to cook when very young: cut the stems and flower ends off, and drop into boiling water; when done, take up and drain through a colander, then with a wooden spatula mesh until the mass is perfect jelly. Now add sweet butter, salt, and pepper, and serve up for the table. Marrow squashes should be split open, the seeds taken out, the skin taken off, and dropped into boiling water, when done, take up and mash; add sweet butter, salt, and pepper; break three or four eggs into the mass, stir it well; place it in a shallow dish and bake it; should the squash prove dry, a little sweet milk may be used to moisten it; cooked in this way, it will prove what its name imports. Marrow indeed.

SPINAGE.—This is one of the most delicious of the whole tribe of the greens family. Wash the leaves carefully, and drop them into boiling water, in which there has been a little salt put; ten or fifteen minutes will be enough to cook them. When done take up and drain through a colander. Now season with butter, pepper and salt, and lay over some slices of toasted bread, and serve up for the table.

SALSIFY OR VEGETABLE OYSTER.—Wash the roots perfectly clean and drop them into boiling water; when done take up and mash; add sweet milk and flour sufficient to make a batter. Season with salt and pepper, and such other condiments as the oyster requires, and fry in butter. Another way in which they are very delicious is, to grate the root on as fine a grater as it will pass through; add sweet milk, just enough to cover it, and boil; when done, add flour enough to make a batter; season with salt and pepper; break two or three eggs in, and stir the whole together, fry in butter or very sweet lard, and the resembrance to oysters is complete.

TOMATO.—There are as many ways of cooking this vegetable as there are tastes. We find the following to answer our purpose; drop the fruit into scalding water, which will cause the skins to come off easily; place them in a brass or porcelain vessel with a table spoonfull of sugar to every quart of skinned tomatoes, and stew; when the tomato is well done, take up, add some crumbs of light bread with a lump of butter; place in shallow vessels and bake; they are very nice when stewed, but when baked are delicious.

TURNIPS.—A turnip that has grown quick, will eat well boiled whole with a leg of mutton. Most turnips have a strong taste, and should be put into cold water when started to boil. To boil turnips to mash, they should be put into fair water; when done, take up and drain; mash with woden spoon or spatula; add salt, peper and sweet butter and serve up. When at the Fair of the Southern Central Agricultural Society, last fall, we learned from Col. Sumner, of South Carolina, a way to cook turnips, which every one that tries will get more than his subscription's worth for this paper. Peel the turnips, and slice them, boil them in fair water, with the addition of a little salt; just before the turnips are done, add to the water a table spoonfull of sugar to every quart of sliced turnips; take up and drain. Season with pepper and butter, and serve up for the table.

IRISH POTATOES.—There are many ways to cook this vegetable to make it delicious, and yet our hotels seldom have them fit to eat upon their tables. An Irish potatoe to be good, must be mealy when boiled. To secure this, select good potatoes, wash them clean, cut the skin from both ends, drop them into boiling water with a handfull of salt, the moment a fork will penetrate them freely, turn the water all off, and let them steam until dry. Take up hot and send to the table. Those left over dinner, may be sliced and fried. Salt them well, and fry brown. Another method of cooking the potatoe is to peel and slice them raw; let them soak in cold water two hours before cooking, to extract the bitterness. Now boil in salt and water, when nearly done, turn off the water, substitute sweet milk, add a lump of butter, with black pepper, and serve up for the table. Another way of cooking the potatoe, is to make it into bread. Boil the potatoes; skin and mash them by hand; add sweet milk, and one half flour, stir it well; season with salt and butter; turn into deep dishes and bake.

Vegetable Seasoners.—Parsley, celery, thyme, sage, onions, garlic and other seasoners, should not be put into soups or stews until the soup is nearly done; chop fine, and put in five minutes before the soup is taken from the fire.

Green Peppers.—A good dish is made from peppers which is called in the West Indies, Devil Hash. Chop equal portions of fresh beef and green peppers very fine, add an onion and some parsley; season with salt and fry in sweet lard.

ERADICATION OF WIRE GRASS.

The following letter has attracted much attention in lower Virginia. It is addressed to Edmund Ruffin, Esq.:

Extract of a letter from Judge J. B. Christian, written to, and by request of the Agricultural Commissioner.

Williamsburg, March 24, 1854.

"I had in Williamsburg a lot of ground of about two acres, of light soil and very rich. It had been kept enclosed, and used only for grazing for 8 or 10 years. I determined to sow it down in oats; and preparatory thereto, late in the fall of 1849, I had the lot well ploughed with a double horse plough. In the spring it was again ploughed and sowed in oats. The ground was as thickly set in wire grass as any land I ever saw. The season was a good one for oats—but the crop on this ground was a failure. It was evident that the oats were destroyed by the wire grass. I determined at once to make some experiment towards ridding the land of this terrible pest. It occurred to me that if the land was kept constantly employed, during the whole vegetation and growing season of the year in crops that would entirely shade the ground, and for the time, prevent this grass growing up, that it would in a few years perish out. Accordingly, as soon as I reaped the oats, I ploughed the land, and sowed it thickly in peas. The crop of peas was a different one for the land. The vines remained on the ground—and during the next winter it was ploughed, preparatory for oats in the spring. At this ploughing, I perceived that the wire grass had very considerably diminished. In the spring I again sowed the lot in oats.—The season was not very good here for oats.—However, the crop was more than double what it was the previous year. Immediately after cutting the oats, I again ploughed the land, and put it again in peas, sowing them thick, more than a bushel to the acre. The vines were, as before, left on the ground. During the winter it was again ploughed; and in this ploughing there was not to be seen in the body of the land a vestige of wire grass. In the spring the land was again sowed in oats, and in an ordinary season there produced, I think, as heavy a crop as I ever saw grown upon high land. During all this time there was no manure of any kind applied. That fall I sold the land. I learn from the present owner, Judge Scarburg, that the lot has been since cultivated in various crops—corn, potatoes, turnip, &c. Yesterday I went with Judge S. to see the ground. We examined, and found almost no wire grass on it—certainly very little. A portion is in clover, which is very fine. A portion, a belt about 37 feet wide running through the ground, had recently been ploughed. Here we had a fair opportunity of seeing whether there was much, or any wire-grass still in the land. We saw not more than three or four spires and roots in the whole ploughing.

"From this experiment it would seem that two successive crops of both oats and peas, requiring only two years, will entirely eradicate this horrible bane to all small grain crops."

Remarks by E. R.—I hasten to publish the foregoing experiment, in advance of other minutes of facts or other subjects collected, that this trial may be repeated by others, as soon as possible. This may be done for the present year, by any farmer who has any thickly set wire grass ground now sown either in oats or wheat. For the beginning of the course, I incline to the belief that wheat would be a better growth than oats, for the object in view; as wheat would have earlier and more complete possession of the ground, and will better withstand the injurious growth of the wire grass. I know too that peas immediately following wheat tends much to restrain the growth of thickly set wire-grass—and this of course has been used for that purpose with good effect, by Edmund Ruffin, Jr., of Prince George county. I have not known (on such land) a second crop of either wheat or oats to be followed immediately by another course of peas as in Judge Christian's trial—and therefore no such complete destruction of the growth of wire grass was obtained by the shorter and less perfect course of wheat, peas, wheat. If, by this course, wire grass can be even prevented being a serious obstruction to tillage for ten years thereafter, it will be an immense advantage to the agriculture of lower Virginia.

FALL PLOWING.

Having some twenty odd acres we intend planting corn next spring, the question comes up in a practical way. What will the soil gain in the available food of plants by plowing it this fall? On light sandy or gravelly soils we doubt the propriety of plowing several months before the seed is committed to the earth, because we fear that the elements of both organic and inorganic matter rendered soluble by tillage, may be washed out of the open ground, and the land impoverished rather than enriched by fall plowing. We have no doubt of the fact that tillage often operates greatly to the injury of the soil, sometimes by dissolving the food of plants prematurely, so that a part is lost by the washing of the plowed earth long before it is planted or sown, and other times the fine clay and sand run together and become hard before spring, so that the labor of fall plowing is lost. These remarks are made to show that there are two sides to the question of autumn plowing for seeding in the spring. Soils which are either very open, or very compact from an excess of fine clay, gain little by stirring them long in advance of planting. Frost, however, may, and often does, operate to improve clay land by rendering it more friable, if plowed in the fall or winter. This is particularly true of clayey loams, soils that do not run together like potter's clay. Clay soils which are not benefitted by fall plowing, nearly always need underdraining to increase their porosity and friability. By throwing the ground into beds when plowed, and opening a deep water furrow between each land, much may be done to prevent the soil from becoming very hard in dry weather, and mortar in wet weather. Undoubtedly autumn tillage saves field labor in the spring, when one's teams may not be in the best possible condition for service, while a great deal of work is suffering to be done. Had we plenty of good teams and laborers, we should rarely plow any field more than four weeks before it was to be sown or planted.

So soon as tillage develops the elements of fertility, and rains fall to dissolve them, our notion is that the seed should be in the ground to grow and consume the raw material of the crop. We are very well aware of the recent researches of Prof. Way and others, showing the retentive power of soils in preventing the loss of manures applied to land in a state of solution; we are not, however, satisfied that expectations in that matter are to be fully realized by farmers. Mr. Mechi says that his liquid manure, after passing through several feet of soil, still contains both organic and inorganic matter; and we know that in all good land, rain-water that comes out in springs and wells is not pure, but abounds in both vegetable and mineral salts dissolved out of the ground. Tillage increases the solubility and solution of these substances which are the food of plants; and hence tillage at the time of planting and afterwards augments the feeding and growth of crops.

Having decided to plow a field in the fall, we should not hesitate to break up the subsoil a little deeper than it was ever before exposed to the light, heat, frost and atmospheric gases above ground. These are powerful chemical agencies, and admirably adapted to deepen and improve a soil. If one can turn under a good, coat of grass, weeds, mould, or manure, so much the better for the land. Break the ground fine —that is, cut narrow furrows, as well as deep lines, that the tillage may be perfect.—*Genesee Farmer.*

GREEN FODDER.

The late Col. Pickering, in an address before the Essex County Agricultural Sociey, once said:

"Every farmer knows how eagerly cattle devour the entire plant of the Indian corn in its green state; and land in good condition will produce heavy crops of it. Some years ago, just when the ears were in the milk, I cut close to the ground the plants growing on a measured space, equal as I judged, to the average product of the whole piece; and found that at the same rate, an acre would yield twelve tons of green fodder: probably a richer and more nourishing food than any other known to the husbandman. And this quantity was the growth of less than four months.

It has appeared to me that the sort called sweet corn yields stocks of richer juice than the common yellow corn. It is also more disposed to multiply suckers—an additonal recommendation to it when planted to be cut in a green state for horses and cattle, and especially for milk cows: and at the time for planting may be so regulated as to furnish supplies of food just when the pastures usually fail. I am inclined to doubt whether any other green food will afford butter of equal equality.

Col. Pickering was wont to speak modestly, when others regarded him as good authority.—Many things which appeared to him years ago, as important agricultural truths, have since proved such, and among others this of planting corn for green fodder. In connection with Col. Pickering's remarks that the time of planting may be regulated as to furnish supplies of food just when the pastures fail, we would inquire inasmuch as corn stalks and leaves, well cured, are an excellent winter food for cattle, whether the time of planting could not be regulated with some reference to the prospective wants of the succeeding winter. We accord most heartily with the sentiment of an excellent article in a former number of this paper, by our worthy predecessor, in which it was shown that the farmer should have the general plan of the summer's campaign made out before hand, should study in the winter, lay his plans for the season, and then carry them out in the summer. We suppose, however, there are exceptions to be made. The clover on a particular field may have failed; or it may have become apparent in time for sewing corn, that the hay crop is going to be short. The farmer therefore will find it convenient with regard to certain fields, not to have his mind unalterably made up till as late as the end of June. To what extent corn fodder is destined to take the place of hay, we are not certain.—That it affords an excellent fall feed for dairy purposes there is no doubt; and it is clearly ascertained that it may, on some farms at least, be profitably grown for winter fodder. Much of course, depends on the character of the farm, and something we suppose may depend upon the season; we see no reason why, in case of the prospect being dark at the end of June for fall and winter food, the farmer who has land fit for the purpose, should not thrust in a few acres for corn-fodder, when otherwise he would not, to be fed out green in early autumn or to be cured for winter, as the case may seem to require.

The merchant turns quickly in an emergency. To a limited extent, very limited we confess, and yet not so limited as to be unimportant, the farmer, for aught we can see, may do the same. We advise farmers to look at this matter.—*Connecticut Valley Farmer.*

CULTIVATION OF FLAX.

The war between Russia and the Western Powers in Europe, will completely interrupt the usual exports of flax and flax seed from Riga and Odessa—the ports from which large supplies are usually drawn—while the Mediterranean and Dutch supply must also be very uncertain, from risk threatened to shipping by Russian cruisers. Already the price of these commodities has been seriously affected by the war. Flax seed is now worth about two dollars per bushel in New York—the general price being about 75 cents—and flax and hemp are also very high. Our farmers who have been far-seeing enough to sow flax this spring, will reap an ample return, and we have little doubt for the following harvest, (1855,) and perhaps for several years, flax will be among the most remunerative crops. Besides the high price certain to be obtained for good, well saved seed in any quantity, another inducement to grow flax is the fact that the straw can be sold to good advantage in New York and the Eastern States, where formerly it was scarcely worth saving. In Holland and in Ireland, the flax straw from an acre brings the producer an average return of $40 to $50, and when the quality is very fine, even as high as $100 or $150, and this in ordinary times, and of course there will now be a large increase in value; when the price of twelve bushels of seed per acre is added to the above, the growers here can calculate the return that foreigners obtain from a crop, which is almost neglected with us. Why should this be? We have every variety of soil and climate; we have men capable of studying out the means by which good crops are obtained abroad, and what more is required?

Our export of seed was very considerable some years ago, but the trade has been lost in consequence of carelessness in the growth, and, it is said, dishonesty in measurement. We now import from East Indies and other parts, between two and three million bushels of flax seed yearly, to be consumed by oil crushers, who again export the oil-cake to England, where a high price is obtained from the stock breeders, who appreciate its peculiarly fattening qualities.

There is no reason why we should not grow all this seed at home, and be large exporters besides, if we rightly set about the improvement of our crop. Nor do we see why it would not pay to bale up our flax straw, (tightly as we do hay,) and ship it to the spinning mills in Europe, so long as our home manufacture cannot consume all we grow. Before we can do this, however, we must vastly improve the growth and mode of preparation for market, which has hitherto been done in a truly slovenly manner. We are glad to hear from our friend at Waterloo, N. Y., that flax-dressing machinery is in operation in this State, and we hope to see much attention directed to this important matter. We expect to have something to say about improved machinery in our next. Meantime, we solicit information on this subject from all who are able to impart it.—*Amer. Ag.*

STUDY THE ATMOSPHERE.

Why it rains and *how* it rains, the former of dew, and the dew-point, are meterological problems and phenomina, which our young readers may be glad to have explained to them.

A very dry atmosphere has a thirst for water so intense, that it will absorb moisture from ice many degrees below the freezing point. Evaporation never entirely ceases until after it is completely saturated. When this takes place, by what natural process is the water precipitated in rain, snow and dews! These results follow an atmospheric law, by which the air has a varying capacity to hold water as vapor, whether invisible or visible, if the atmosphere had the same power to contain aqueous particles at all common temperatures, it could never rain, nor would there ever be a dew. A change of temperature is the cause of rain, hail, snow, dew, mists and clouds; and the daily revolutions of the earth on it saxis, and its annual circuit round the sun, are the principal causes, not only of a change of temperature and winds, but of a summer, autumn, winter and spring. The humidity of the atmosphere governs in a good degree the evaporation from the leaves of agricultural plants as well as others: and evaporation is the measure of circulation from the roots of all trees and all growing crops.

Humidity is an important element in agriculture, even when it does not rain. When a current of air saturated with moisture, meets one of a different temperature, and also saturated, a fall of rain is inevitable, because the air at the mean between the two extremes has always a less capacity to hold aqueous vapor than each separate mass of air had before the two were united. Thus, suppose the atmosphere high up near the region of perpetual snow, or the snow line, saturated with water at 40 degrees, descends to an atmosphere near the earth equally filled with vapor, and having a temperature of 80 degrees. The mean between 40 and 80 is 60 degrees; and if the air at that temperature had the mean capacity between 40 and 80 degrees for holding water, it could not rain nor hail, nor snow, nor yield a respectable dew. It is easy to understand that without rain, there could be no land animals or plants; and therefore the divine mechanism for dropping fatness from the heavens in showers and dews is the more worthy of study and admiration.

Heat expands the atmosphere, and increases its capacity to take up water and hold it as an invisible vapor. Cold condenses air, and diminishes its power to contain particles of water in any form. The attraction of aggregation brings the separate particles together, often aided by electricity, and the sudden concussion of thunder, and they fall by reason of the attraction of gravitation. It sometimes happens that drops of rain are wholly evaporated before they reach the earth in passing a stratum of dry atmosphere; and at other times a mass of fine cold particles gain greatly in size and coalesce into large drops in falling through a stratum of saturated air.—*Gennesee Farmer.*

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Is the First Milk Poison.—A friend informs us that Mr. H. B. Wyman, of Sidney, lost a valuable sow not long ago, in consequence of giving her the first milk of a cow after calving, and asks if it invariably causes such trouble if hogs are fed on it? We believe that it does. We one year gave some such milk to a sow that was with pig. It made her sick and she cast her pigs before her time, all of which were dead. We were told that such would be the result if we fed her with it, but were faithless.—The next year we fed it to another under the same circumstances, and the result was the same —all the pigs being dead. We found that rather costly experimenting, and have never tried it again. Last spring one of our neighbors who had a very fine sow, fed her with a pretty generous portion of such milk, she immediately became sick and came very near dying.

And now we have the above fact related of Mr. Wyman's sow as above.

We think these facts are sufficient to warrant the conclusion, that such milk is highly injurious to swine, or at least to sows. It would be rather expensive to go into a series of experiments, to swine, but when isolated and accidental cases are all followed by the same result, it is fair to consider it an established law of nature, and worthy to be put down among the scientific facts in animal physiology.

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The Strawberry Bed.—Continue to take off the runners from the bearing beds; keep the grass and weeds down; observe closely the blossom. (A Strawberry vine that does not bloom this month is not with the culture.)—The staminates or males, will be more inclined to run than the pistillates or females; keep them within their proper bounds; one staminate to eight pistillates. Where it is desirable to multiply plants, let the runners take root; those not needed to plant out, can be cut up in the winter, to enrich the ground for the remaining plants; remember to leave all the plants cut out to decay on the beds.

We saw an English gardener in our travels last season, throwing away wheelbarrow loads of cut up plants, and carting on stable manure, when, had he left the vines to decay where cut, he would have given the plants nature's food, and stimulated to fruit, instead of vine; should the weather prove dry, and the plants show a disposition to fruit, give frequent waterings.

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Crush the catterpillers in the egg, and you will save much time and injury, and secure a larger crop of fruit.

Rain Water and Cisterns.—The great mass of country residents seem to have no more conception of the enormous floods of clear, pure rain water, that annually pour off the roofs of their dwellings, wood-houses, barns, sheds and other out-buildings, than if they never heard of such huge watering pots as the clouds in the sky. If all the rain which falls in the northern States within a year should remain upon the surface of the earth, without sinking into it and running off, it would form an average depth of water of about three feet. In the Southern States it would be more; in the American tropics it would amount to about ten feet; and near Bombay, in Asia, to twenty-five feet.

Every inch of rain that falls on a roof yields two barrels to every space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate on a similar surface. A barn thirty or forty feet, yields annually 364 barrels —this is enough for more than two barrels a day for every day in the year. Many of our medium landlords have, however, at least five times that amount of roofing on their dwellings and other buildings yielding annually more than four thousand barrels of rain water, or about twelve barrels or one hundred and fifty ordinary pailfulls, daily. A very small portion of this great quantity is caught in the puny and contemptible cisterns and tubs placed to catch it; but full sized capacious reservoirs, fit to hold this downward deluge, we know not where to find, even in a single instance!

It is true, that where a constant draught is made on a cistern, it need not hold the full year's supply—even one-sixth part will, in general, answer, as the variations in the wet and dry seasons do not often amount to more than the rain of two months.—*N. Y. Cultivator.*

Learn all You Can.—Never omit any opportunity to learn all you can. Sir Walter Scott said, that, even in a stage-coach, he always found somebody who could tell him something he did not know before. Conversation is frequently more useful than books for the purpose of knowledge. It is, therefore, a mistake to be morose or silent, when you are among persons whom you think ignorant, for a little sociability on your part will draw them out, and they will be able to teach you something, no matter what their employment. Indeed, some of the most sagacious remarks are made by persons of this description, respecting their particular pursuit. Hugh Miller the famous Scotch geologist, owes not a little of his fame to observations, when he was a journeyman stone mason, and working in a quarry. Socrates well said that there is but one good, which is knowledge, and one evil, which is ignorance. Every grain of sand helps to make the heap. A gold-digger takes the smallest nuggets, and is not fool enough to throw them away, because he hopes to find a larger lump some time. So, in acquiring knowledge, we should never despise an opportunity, however, unpromising. If there is a moment's leisure, spend it over a good or instructive book, or in talking with the first person you meet.

The Cat and Canary.—A lady had a pretty canary-bird which was so tame that she allowed it to leave its cage and fly at large in her apartment. She had likewise a fine large cat, which she had trained to treat her bird with gentleness; so that they were very good friends.

One morning the bird was hopping about the room, picking up crumbs from the carpet as usual, when the cat which was asleep on the rug, sudden sprang up, and seizing the bird in her mouth, jumped with it upon the table. The lady was alarmed for the life of her favorite bird, and starting from her seat was about to visit her displeasure upon poor pussy, when she discovered the occasion of the cat's unusual behaviour.

The door had been left open and a strange cat had just crept into the room intent to make the little bird his prey, had not the friendly puss so seasonably rescued her. The lady immediately turned out the intruder, when her own cat leaped off the table and released her affrighted captive without doing it the slightest injury.

It was the nature of this friendly puss to destroy every bird within her reach; but in respect to canary, she had learned self-control.—And cannot a child overcome his natural tendency to selfishness, anger, or any other fault? It can be done, little friends. Will you try?—The Saviour is ready to help you to do this. It will make you lovely in the sight of all and well pleasing to him who loved you and gave himself for you.—*Child's Paper.*

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How to Decompose Bones.—If one lives in the city, and has but a small yard, with nice trees and shrubs the quantity of manure needed will not be great. He should throw the bones, egg shells, &c., of the kitchen into a barrel, and throw on them wood ashes and water which will dissolve them without any smell, and in the course of a year make a great deal of very best manure for all sorts of fruit trees. If he has a large farm or garden and has access to large quantities of bones, he may decompose them as did the neighbor of a correspondent of the New England Farmer. He made layers of horse manure and bones alternately until the pile was several feet high: this he covered with manure. The pile heated, or fire-fanged and in a short time no sign of a bone could be seen.

Farmers, clean up your door yards, and by this process, the manure will be just the thing for your turnip patch.

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Bees and Fruit Trees.—A writer in a literary journal of Paris, states that the bees greatly improve the fauctification of fruit trees. Orchards in which several hives are kept, always produce more fruit than those in which there are none. In the Provinces on the Rhine, the fruits are more abundant and finer than in any other part of Germany, and there it is the custom to keep Large quantitics of bees. Plants, too, which bees visit, thrive better in the neighborhood of hives.

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Carrots for Horses.—The stable-keepers are beginning to find that these vegetables form a cheap and nutritious food to mix with grain for their horses. It is better to give a working horse a peck of carrots and four quarts of oats or corn-meal a day, than to give him six quarts of meal.

Wire Worms.—The wire worm has been the bane of farmers for a number of years, and numerous experiments have been made to stop their ravages, but generally without effect.—Three years ago, in planting a field with corn where several crops had been destroyed by the wire worm, I soaked the seed in copperas water forty-eight hours—then applied one pound of sulphur to each bushel of seed—the sulphur adhering to the grain—and planted it. The result was, the worm did not make its appearance. The crows pulled up the corn in a few hills, but left the grain untouched, and did not visit the field again. I have used it with equally good success the last two years.—*Genesee Farmer.*

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Human Life.—Ah! this beautiful world.—Indeed, I know not what to think of it. Sometimes it is all gladness and sunshine, and Heaven, it is not far off. And then it changes suddenly, and it is dark and sorrowful, and the clouds shut out the sky. In the lives of the safest of us there are bright days like this, when we feel as if we could take this great world in our arms. Then come the gloomy hours, when the fire will neither burn in our hearts, nor on our hearths, and all without and within is dismal, cold and dark. Believe every heart has its secret sorrows, which the world knows not; and oftentimes we call a man cold, when he is only sad.—*Longfellow's Prose.*

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Water-proof Frock.—The following is recommended by Mr. Johnson, of Louisiana as a cheap mode of providing water-proof sacks or frocks for negroes. The quantities named are for a plantation of fifty or one hundred negroes: 20 gallons linseed oil, into which mix 3 lbs. of litharge, well pulverized, after the oil has boiled a few minutes, which should be well stirred in. Into this, when boiling hot, dip a sack or overcoat, well made of common cotton cloth, wring as dry as possible, and then hang in the sun a few days. It costs less than sixty cents, and will last a year or two.

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Conceit is proud that he has learned so much. Wisdom is humble that he knows no more.

ANOTHER RECEIPT FOR PREPARING SEED CORN.—A writer in the Rural New Yorker says, "I wish to inform my brother farmers how I prevent birds and worms from destroying my corn when planted. When my corn is shelled, I pour it into water nearly at a boiling heat, and stir with a stick until the grain is hot; then drain off the water, and put on tar enough to make plaster or ashes stick, and roll it in either. I prefer ashes. The less tar the better, and have the ashes thick. By this mode of treatment, I have lost but very few hills of corn either by birds or worms."

HOW TO MAKE THE BUTTER COME.—E. Marsh, in the New-England Farmer, states that butter, in churning, sometimes fails to come, on account of a species of garget that troubles the cows, and that he has found the difficulty to be removed by administering to the cows, occasionally, a little saltpetre, to the extent of a tablespoon even full to each animal, every other day, for two or three times. It should be powdered, and given in grain or meal. The remedy has proved effectual.

The Man who "carried the thing too far" has let it drop.

WHAT DO THE PHYSICIANS SAY?---Listen to the testimony of an eminent physician in favor of M'Lane's Vermifuge, which is now universally acknowledged to be the best in use; even members of the medical faculty (who are so often opposed to the use of patent medicines,) cannot withhold their approval of this invaluable remedy:

LIND, Stark Co., Ohio, Jan. 8, 1849.

I have used Dr. M'Lane's Worm Specific in my private practice, and am prepared to say that the unparalled success with which I have prescribes its use, both for children and adults, induces me to say the most in its favor of any specific or patent medicine ever before brought to my notice. The mode of administration, the smallness of the dose, and the certainty of its efficacious effects, give it, in my opinion, a decided advantage over any other medicine of the kind before the public.

☞ Purchasers will be careful to ask for DR. McLANE'S CELEBRATED VERMIFUGE, and take none else. All other Vermifuges, in comparison, are worthless. Dr. M'Lane's Vermifuge, also his Celebrated Liver Pills can now be had at all respectable Drug Stores in the United States and Canada.

For Sale by P. F. PESCUD, Raleigh.

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Febuary, 1854. 10—tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annum, in advance; six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

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November, 1853. 8—

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November, 1853. 8---

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Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

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JOHN F. TOMPKINS, M. D., Editor. **Wm. D. COOKE & Co., Proprietors.**

Miscellaneous.

REPORT

Of Committee on Education before the Maryland State Agricultural Society:

The Committee on Agricultural Education have further considered the subject on which they reported, in part, last year, and now desire to make some more definite suggestions. They believe it is quite as unwise to recommend too much in the present condition of our country, as too little. It is not asked, that Farmers shall be educated as expert Chemists, or complete Botanists, but, that they shall avail themselves of the skill and knowledge of the profession in all the sciences to an extent far greater than they now do, in the management of their lands and the preservation of their crops. Many persons, for example, now undervalue analysis of crops and soils; but, only show the Farmers how they can make a practical use of this kind of skill, and you will interest them in it; and, what is more, in their own researches, much oftener than at present, they will meet difficult cases, in which they will ask the aid of the professions. They are told frequently enough, to know it by heart, before this time, that their soils must have Lime, and Chlorine, and Magnesia, and Sulphuric, and Phosphoric acids: and nothing is easier than to instruct any student of ordinary intelligence, how to determine, with very little expense, whether any one of these substances be deficient or not. Nor it needs no Elliott, after doing this, to urge him to apply salts, marls, lime, bones, guano, or other agents, according as one or another of these *desiderata* may be discovered. He has the hornebook in his hands, and cannot mistake his duty to put into his ground, what they do not possess, in order to feel conscious that he has performed his part well. He is not very liable to err in applying too much! Say no more then, of the greatest Chemists locking up their analysis in language which common men cannot understand. Put them, at once, into expressions which they can read. The sons of the soil must be dull indeed, if they cannot thread this labyrinth, after the able and thrice-repeated instructions of the State Chemist. The Committee ask for no more, on this part of the farmer's business. Let the rising generation be taught, at least, to make such examinations, by Chemical Re-agents, as in a vast multitude of instances, they ought to be competent to make, without relying on costly professional assistance. If there be quackery in one of nature's noblemen presuming to swallow at his own discretion occasionally, a dose of Epsom salts, instead of inviting the Doctor to commence the process of taking his life *secundum artem!* There is, in short, at least one maxim, which it is not well for professional men, in our country, to quote to the dear people; who beyond all other nations, have their eyes and ears open. It is the much abused proverb, "*Omne ignotum pro mirrifico*," freely translated, as follows, omne ignotum, all humbuggery; pro mirrifico, talks mystically. Away, then, with this necessity for farmers to run to chemists, to know if they shall sow two bushels of salt on their fields.

It has long been held as sound doctrine; or what is the same thing, according to American ideas, has been spoken in lectures, and repeated, many times, in reports of societies, that farmers, as much as other men, require special instruction in their trade; that they must turn their attention to investigate the peculiar facts which occur in the circle of their obligations; and that they must form their own opinions upon the personal verification of the principles that they read in books, or notice in the practices and customs of others around them. In other words, they are not to be made successful farmers by authority, nor by prescription, nor by inheritance. The only question, then, that remains, is, how shall this doctrine become our established practice. It is to be feared, in this, as in many other points, that our countrymen say, and do not. It is of little avail to reiterate such things for the thousandth time, unless it leads to actual improvement in Agricultural Education. Tacitus says, of a certain class of men, in his times, "they will always be forbidden, in one state, and will always be retained." We have much cause to apprehend, that practical unbelievers in scientific farming will continue to be numerous among us, till we shall take up acting instead of talking, on this matter. Our neighbor, glorious little Delaware, has set us an example which is too near, and too directly in point, to be forgotten. Her liberal and intelligent citizens have placed $50,000 in Newark College, as a foundation for a Professorship of Agricultural Chemistry; and this must be done in all the States, before the academies and other schools, in their respective bounds, can be supplied with teachers, who shall be able to do full justice to themselves. This is the most obvious and practical course to be adopted in our State; to add to some existing academical faculty, the proper professorships, in which they are now deficient, to supply, on easy terms, a perfect education in these particular branches. It will be a great gain indeed, if we will, at once, take this first step, to support, in some college, a Professor of Natural History, who shall be a Chemist; and, to associate with him, as the Steward of the establishment, a good practical Farmer, in addition to the Professors and Teachers, who are now found, in any one, almost, of our present Institutions. The students, in the agricultural classes, should devote a third part of each day, and perhaps half, to the practical application of principles, upon the public grounds. None should be admitted who are not advanced enough in age, and in common learning, to go on with the class, without being a drawback or impediment to their operations. There should be as much uniformity and exactness of method, in this, as in the other collegiate departments. Provision should be made for the accommodation of county scholars, to be properly recommended and selected; who should not be charged, either for lectures or for tuitions; and such students, when of bright talents, might have the further privilege of free board, on condition of becoming teachers for a term of years in the State, that might require their services. The students should take their exercise, by working in the field, or in the garden; and students from other departments, would often desire the opportunity to join in such labors; and to secure healthy and vigorous constitutions. Once established, it would be comparatively easy, to extend these wholesome practices, and to transmit them to posterity. Business habits are best taught by practice. Administrative talent, like any other talent, does not come altogether by instinct. Native debilities need active training and steady exercise, under skilful direction. When this shall be accomplished, it will no longer be a merited reproach, that education is provided for all other classes, better than for agriculturists. In such a school, young men might acquire all the benefits which some seek, at great expense, by travelling. The improvements of all countries, and of different nations, and the best methods of men of skill, everywhere, would be collected there, and carried out in practice; and the student would carry home to his own farm, what is most adapted to his peculiar soils and his exact station.

There is no ordinary outlay, that the government can make, which would pay better than a public provision for this purpose. No other kind of internal improvement, can more justly ask for such provision; because the benefits to accrue from no other, can be more equally distributed among all classes. Production, emphatically, begins with Agriculture; and whatever expenditure the Legislature may so make to improve agriculture, will directly promote the particular interests of all orders and ranks of our citizens. Schools for learning Latin and Greek, in other words, have far less reason to invoke public endowments, than schools for sowing and reaping grain.

But, another of the farmer's cares, never to be out of mind, is, for his trees; under which, he has the same need of tasking all the stores of his own knowledge, and of soliciting the help of scientific men .Our country is so vast, and so well supplied, that we do not as yet realize all our obligations, in regard either to our fruit or forest trees. Our abundance blinds us to our dependence on God, and to our neglect of the agency of man. We ought to save what forests we have from premature decay; and to foster a new growth of timber and of ornamental trees. It is as needful to study this part of our culture, as it is to protect vines, and grains, and fruits, from disease, and from their natural enemies; or to defend existing crops from the ravages of insects. Shall we leave coming generations to provide substitutes for themselves, for the most common trees of the woods; or by a prudent forecast and watchful cultivation, shall we convert even deserts into fruitful fields; kill noxious worms and bugs; and change them into manures, to produce fruits, instead of destroying them? The oldest fable known to man, and the most beautiful, is that of the Trees. Let us take as much care of the trees, as Jotham made them take for themselves, in minding their proper business; for, our resources are not inexhaustible, unless we are vigilant to repair the necessary and constant drains which are made upon them. In one word, we must do what our sister States have done, if we wish to keep pace with the age, in our political and social progress. Unless we design to depend upon their scientific schools, which even now, are drawing great numbers of students from the West and the South, to the East, we must open schools of our own.

But, the benefits which we seek, in this mode, would extend to others, no less than to tillers of the soil; since Natural History embraces climates and health, as well as vegetation; and we should not more honor the man who causes two blades of grass to grow where but one grew before, than him who kills pernicious animalcules and preserves the staff of life, or him who protects the birds of the air and the flowers of the field. We have our schools of law, and of medicine, and of theology, and why not of agriculture? Even medicine ought to be studied, to some extent, not only in Colleges, but in the higher schools, by all classes of scholars, to direct them in forming robust, and active, and healthful habits. Inasmuch as the whole of society must employ physicians for the healing art, the whole should be able to judge accurately of their intelligence and fitness; and even to do without them, except in acute diseases. And, this is precisely what we claim for agricultural institutions; not to make entomologists of all who swing the scythe or hold the plough; but to do for them what is dear to independent minds, to put it in their power to protect themselves from quackery and imposition, whether in purchasing soils, or the means of making them fertile. The labors of a single Norton, repay a hundred fold, the outlay which supported him. He was, eminently, a working man; because by his aid, farmers worked with increased power and success. The "Lawrence" School in Massachusetts, is doing in that State, what the "Garden of Plants" did for France, when remedies were loudly called for, to exterminate natural evils, which were corrupting the sources of Production and Happiness.

European schools of agriculture are mostly sustained by Royal Munificence; but, the numbers of their pupils are limited; and, they are not, ordinarily, of those independent classes, who in our State, own the soil which they cultivate; and who demand an education, equal to that of other portions of their fellow-citizens. Indeed, it is by no means certain, if we had the ability to erect a mere school of agriculture, as a separate institution, that it would command the attention of any considerable number of American youth. Yet, supposing that they would, freely resort to it, there is no probability at present, that such a College can be built. It would require, at least, two hundred thousand dollars, to begin such an establishment, on a respectable footing. Six Professorships would be the smallest Faculty that could be fairly expected to meet the requisitions of such a work. The Committee, therefore, believe it will be more in accordance with Republican habits and opinions, to engraft the needful additions upon the thriving stock of our State Institutions. It will, thus, become a part of the American system. This feature will speedily make its appearance in all our seminaries of learning, when the highest colleges in the respective States shall have carried such a plan into successful practice. Connected with such colleges, there should always be Farms of sufficient extent, to afford ample room for the study of every branch of agriculture; and, the branches of husbandry, and veterinary medicine, should be at the option of every scholar who might desire to acquire some practical skill in these necessary matters. The classes should, also, have free use of all American and European Journals of Science; and, in this connexion, the Committee desire always to keep in mind, that one of the most efficient auxiliaries to diffuse agricultural education, is the Farmer's Newspaper, and the Farmer's Library, when properly studied, preserved and practised. In this school, as in all others; the hand of the diligent will make rich. There is always a word in season, in these publications; and, it must be the farmer's fault, if it become not to him "as apples of gold in pictures of silver." He who takes all these respectable publications, has his lesson for every day; and stands in little need of costly works on botany, and chemistry, and geology, and zoology. Even the Annual Reports of the State Chemists, need not consist of anything more cumbrous than tabular statements of actual results, of well conducted experiments. Each one of these papers would, thus, become a reporter to the public, of authentic data, upon which individuals might form their most important calculations; and, the professional laborors would ask nothing better, than to make these popular Intelligencers the Heralds of their fame. It would no more be said, that the husbandman requires. He would, eminently, be a Logician; drawing valuable conclusions from correct premises; reaping richly, as he has sown; and enjoying a perpetual feast, through all the phases of the circling moons.

DR. MURPHREYS, Chairman.

ACTION OF GYPSUM ON ORGANIC MANURES.

BY PROF. CAMPBELL, OF S. C.

Certainly one of the most important questions with the farmer, especially in the older States, is this—"how may fertilizers be best obtained, and made most profitable?"

Soils that have been long under cultivation, must necessarily become deficient in many of the elements of fertility, unless the exhausted supply be restored from time to time by proper applications. Without this restoration, farming would soon become a profitless business.—Labor cannot bring from a soil what is not there. When you wish your horse to do long and faithful service, you feed him well; if you do not, strength soon fails, and whip and spur are insufficient to revive his drooping energies. So, plough and hoe are equally inefficient in reviving the energies of a starving field. Economy in sustaining or restoring the strength of soils, is no less important than economy in feeding horses and cattle. But, as an abundance of such nutricious food as may arise from the products of home culture is most economical in feeding stock, so the free application of home made manure, well collected and well kept, is the most economical of all fertilizers. The farmer who goes abroad to buy guano, while he leaves at home masses of manure, from which wind and rain are rapidly carrying off some of the very same elements that give to guano its value, is not acting more wisely, than he who leaves his hay to be drenched with rain and bleached by the sun, while he goes out to buy oats or barley to take the place of hay in his winter's feeding. Let what you have be made as available as possible; then, if more is needed, it will be time to begin to look abroad for it.—After all proper means have been resorted to for collecting and preserving your barn yard, stable and hog pen manures, ashes, soapsuds, &c., you can better afford an accasional ton of guano for the sake of an extra crop of wheat, and a succeeding "fair set" of clover.

In collecting fertilizing materials for farming purposes, two leading objects should be kept in view:

1. To prevent, as far as possible, any loss of value in the material during the interval elapsing before it can be conveniently applied to the soil. 2. To increase its value, if this can be done profitably.

My present wish is to state briefly, that which others have stated before, but in a different form—what careful experiment dictates as the most efficient means of attaining both the objects.

I am well aware how little confidence farmers, generally, place in chemical theories and laboratory experiments, before the claims have been fully established by the unerring test of practice. Hence, for the satisfaction and benefit of those whom it may concern, I have just concluded an experiment of laboratory, crucible and retort—an experiment, involving nothing new or remarkable in the eye of one familiar with the principles of chemical science, yet, important in its practical bearing. It was concluded as follows:

A barrel was filled with fresh scrapings from the stalls of horses. Over the manure, as thrown in, a little ground plaster was sprinkled from time to time. After the barrel had been compactly filled, it was allowed to stand some weeks, until it had gone through the heating process, found always to take place when newly collected manure is thrown into heaps. But during this heating or formentation, (as it may with propriety be called,) there was none of that "vapor" of strong odor which ordinarily arises from fermenting manure heaps. When the mass had become cool, clean rain water was passed through it and collected at the bottom of the barrel.—This water was found to contain one of the elements* of plaster, and one of the volatile substances (carbonate of ammonia) above alluded to. On emptying the barrel, a white powder, looking very much like plaster was found mingled with its contents. But, when tested, this powder was found to contain only one of the elements of plaster; while it contained also one element of the volatile carbonate of ammonia just mentioned.

In order that those who are not familiar with the principles of chemistry may understand the foregoing experiment and fully appreciate its results, a little explanation is necessary.

The volatile matter which escapes so rapidly from heaps of manure, and the presence of which is perceived by its odor about stables where horses are fed, is called by chemical writers "carbonate of ammonia," consisting of carbonic acid and ammonia combined.

Plaster (gypsum) is, according to chemical nomenclature, a sulphate of lime; *i. e.* sulphuric acid and lime combined. Liebig says, "carbonate of ammonia and sulphate of lime (gypsum) cannot be brought together at common temperatures without mutual decomposition.—The ammonia enters into combination with the sulphuric acid, and the carbonic acid with the lime, forming compounds which are not volatile; and, consequently, destitute of all smell."—Thus, we get two new compounds; namely, carbonate of lime in very fine powder, and sulphate of ammonia, which is not volatile, and of course not liable to be lost in the same way as carbonate of ammonia. This sulphate, however, is readily dissolved in water. Hence, in the experiment above detailed, it was carried out in solution by the water passed through the mixed mass of plaster and manure.

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* "Element" is not used here in its strict chemical sense.

What points, now, are illustrated by the results of this experiment? First, that ground plaster sprinkled about stables and fresh manure, as it is collected into heaps, will arrest the escape of a most valuable portion of the fertilizing matter. Secondly, that if this manure be left unsheltered from the rain, the sulphate of ammonia generated by the action of the plaster will be washed away; and, thus, the sulphuric acid and ammonia, both of which are highly valuable as fertilizers, will be lost.

What has been said above applies equally to all animal manures, and all decaying organic matter from which carbonate of ammonia is set free.

The proper course, then, to be pursued in the management of such manures, is entirely obvious. They should be thrown together in a convenient place—sprinkled with plaster as they are thrown up, and carefully sheltered from the rain until they can be conveniently applied to the soil.

If the farmer who buys guano while he leaves his stable and yard manures exposed, would expend the cost of a single ton of guano in constructing shelters for these manures, he would, in a few years, realize in their increased value, the worth of ten tons of the imported manure with all its remarkable properties.—*Southern Planter.*

DUCKS—SELECTION, MANAGEMBNT, &c.

Those birds who best represent what has been heretofore said on color, form and weight, of course will be those which the judicious breeder would choose for the purpose of increasing his stock.

One drake and three ducks are as many as can be judiciously kept in one yard: for a larger proportion of females, or the presence of two or more males in the same run will tend to the production of unfertile eggs.

Take care not to breed in and in to too great an extent. Like all other animal productions ducks are improved in stamina by the occasional introduction of new blood. Never keep a drake more than two years.

If possible have your ducklings hatched by ducks, and not by hens; for the habits of the hen are such as to beget an indisposition on the part of young brood to follow those habits natural to their kind—more particularly in the matter of sitting. Besides ducks reared by hens seldom fail to annoy them afterwards, and forget their own places and functions.

Be always careful to allow your ducks free access to deep water, so that they can swim in it; for, to such place they naturally resort for the purpose of having that intercourse the result of which is production. This provision of a depth of water is a necessary condition of fertility in eggs, and should not be neglected.

Ducks should be always penned towards sundown, receive their food apart, and kept within the enclosure until after the usual time of depositing their eggs, which is generally early in the morning. Many of them lay late at night.—Ducks should be separate from other fowls.

The best feed for ducks, under common circumstances, is steamed roots—such as carrots, turnips or mangel wurtzel, mixed with bran, or corn meal. Where there is no grass handy the refuse of the kitchen garden should be given them regularly. But, where there is a good walk, they will very generally pick sufficient animal food, slugs and worms, and vegetable sustenance as will meet their natural wants. I think that, unless every thing is favorable to the proper management of ducks it would be as well to dispense with them as stock.

I have alluded to the comparative merits of the kinds mentioned as layers. It is best to allow the sitting duck to make choice of the situation of her own nest, and leave her undisturbed in its possession if it is a safe position she has chosen. It is seldom that they will sit well if removed; or if she does, she will sit on the bare nest. Secret places, under knots of shrubbery, underbrush, or in the hollow of an old tree are the most attractive situations for her. Here she will form her nest, composed of grass and leaves and of her own down, and will lay her eggs, which she will carefully cover, when she leaves her incubation to attend to the wants of nature or appetite. Twelve eggs are a sufficient number for a duck to hatch. Some incline to sit on fewer; and this disposition should, if possible, be noted, and the requisite number furnished from the more freshly laid stock of eggs in the yard. There can be little difficulty in detecting the sitting duck who has stolen her nest; for, when she leaves it any time, her voice denotes her vocation, while the disordered state of her feathers helps to tell the tale of her secret arrangements. She can thus be traced to her hiding-place. Care should be taken to supply her with food, at her choice; and during the latter period of incubation, it has often been found necessary to supply her at the nest—so attached does she become to her duty. The duck hatches in from 28 to 30 days; but the period varies sometimes in accordance with the prevailing temperature.

The duckling seldom demands assistance in emerging from its shell; but it is necessary that the mother and the young brood should be prevented from the free use of water for a week or so after incubation has taken place. A shallow vessel filled with water should be occasionally furnished them wherein to dip their bills, but not deep enough for them to flounder and wash in. The water ought to be soft. Hard spring water is bad.

Boiled corn meal is the best food which can be given them during the period of their confinement—administered cold. Chopped lettuce, or other green food should be mixed with their meals. Some use bread crumbs, but corn porridge is equally as good. It would be well to allow the ducklings to feed outside the coop where the mother is confined. She seldom regards the wants of her young until she has gorged herself, and perhaps hurt some of her brood in her haste to cram her own crop.

Rains and dews are fatal to young ducks, and care should be taken not to allow them to be exposed to either, as it subjects them to cramps which leave them debilitated and useless ever afterwards, with few exceptions.

The most approved mode of fattening ducks is to feed well, and confine them to such situation as may give them access to water, but not such as they can swim in. But I would recommend a systematic course of good feeding throughout, which produces the best flesh—and a medium between uncontrolled liberty and close confinement. If garbage, fish, or other highly flavored food is used to fatten ducks they will taste of it when on the table. Ducks raised in a fishing village, when served up have "a very ancient and fish-like small," which must be the consequence of ther feeding on the refuse guts, and the waifs of the fisherman's hooks and nets.

Cramps and paralysis are the principal diseases which affect ducks; and the best cure, generally, is to kill them; for there is little hope of their recovering from a severe affection of this sort. As they are gluttonous feeders, and require considerable quantities of small stones, or gravel, to aid their digestion, they sometimes pick up minerals of a poisionous nature. There is, however, little risk from this evil in those instances where natural privileges favor the proper keeping of ducks; and, as I said before, where these are not present, it were best to decline the cultivation of this kind of stock. Noxious water, too, sometimes proves fatal in its use; but, where this is, it is not very probable that duck keeping will be prosecuted to any hieght.

VALUE OF WELL ROTTED PINE BARK AS A TOPICAL DRESSING TO CORN, &c.

Some weeks since a correspondent who has a supply of well rotted pine bark, two miles from his farm, asked our advice whether it would be good as a top dressing to his corn in the hill, and whether the benefits likely to arise from its application, would justify the expense of hauling it the distance before named. To these questions we returned, in substance, the following answers. As there may be others similarly situated, we give place to the following:

We have no doubt that by applying half a shovel-full of your rotten pine bark to each hill of corn, that much good would be effected by it; *first*, by maintaining moisture around the plants, and preventing the escape, by exhalation, of the ammonical gases resulting from the decomposition of any organic manures that may have been ploughed in, or any organic remains previously existing in the soil, and *secondly*, by furnishing many of the earthy phosphates, and other substances of an inorganic nature, which the corn and other plants delight in, and without which they cannot grow in perfection. The bark of all trees is much richer in such elements than the wood itself—those of the pine family are peculiarly so. Without pretending to determine, with any degree of exactness, what are the constituent elements of your decomposed or rotted pine bark, we may venture upon the presumption, that, if an analysis were made of it, it would be found to contain the following substances:—*lime*, *magnesia*, *phosphate of lime*, *iron and magnesia*, *sulphuric acid*, *chloride of sodium*, *soda*, *carbonic acid*, *potash*, *inorganic matter*, and *coal*. There is no doubt that from the exposure to which your bark has been subjected, in the process of decomposition, that it has lost considerable portions by lixiviation, promoted by the effects of the rain which has fallen upon it through the long series of years that it has been exposed; but still there is sufficient remaining to operate with essential benefit; for there is not a single substance named by us, that is not absolutely necessary to the healthful growth of corn. Many of these substances too, if your land has been long in culture, have been abstracted from the soil by the ordinary process of culture, and the leaching of the rains.

We have disposed of one of the questions you have propounded to us, and shall now proceed to the other, viz: whether the benefit to arise from the application of your decomposed pine bark in the way proposed, will be sufficient to justify you hauling it *two miles*. To this question we answer in the negative. Our opinion is, that, generally speaking, no manure, unless it be highly concentrated animal manure, which may be so highly charged with nitrogenous compounds as to render the application of only a few hundred pounds to an acre, necessary to ensure fertilization to the soil, as guano, bone-dust, and kindred substances, or such mineral manures as lime, American phosphate of lime, or ashes, will bear the expense of hauling so far. It may, however, be assumed as a postulate, that where soils may be destitute of vegetable and organic remains—a fact of rare occurrence—that decomposed bark might bear the expense of hauling the distance indicated by your question; but in every such case, the rotten bark should be combined with animal manure, and the latter would be the better in proportion to the largeness of the nitrogenous elements which it might contain; for it may be set down as a truth that cannot be gainsayed, that vegetable life cannot be successfully and advantageously carried on, without the plants be supplied with a healthful quantity of nitrogen.

There is a point of view in which the application of all decomposed vegetable matters exert a salutary influence. As the parent of mould—a substance so essential to every fruitful soil—it imparts to the earth the capacity of attracting, absorbing and retaining the ammonia emanating either from the rains or from the atmosphere—and it should not be forgotten, that the quantity derivable from the sources, form an important proportion of animal food received by every cultivated plant that grows and bears its fruit. But for this beautiful arrangement in the economy of God, the improvidence of man would long since have rendered the earth barren and desolate. But so it is, through our great Parent's care, he causes that which man wastes to be restored to the earth through the agency of the air, the rain, the dew, the snow, and the hail, and as a reward to the careful husbandman, who keeps his soil in a condition to profit by them, it is ordained that he shall be repaid for his labors, in order that he may be inclined to continue his wise course, by the force of example, through its beneficial results, allure others to tread in his footsteps.—*Amer. Farmer.*

RECEIPTS.

To make Ink for Marking Linen with Type.—Dissolve one part of asphaltum, in four parts of oil of turpentine, add lampblack or black lead in fine powder, in sufficient quantity to render of proper consistence to print with type.

ToMake Patent Cement.—Lime, clay, and oxide of iron, separately calcined and reduced to a fine powder, are to be intimately mixed. Keep it close, and when used mix a little water. It will make cracks in wood water-tight, etc.

To Remove Grease from Books.—Lay upon the spot, a little magnesia or powdered prepared calk, and under it the same; set on it a warm flat iron, and as soon as the grease is melted, it will be all absorbed, and leave the paper clean.

To Destroy Crows in Cornfields.—Steep corn in arsenic and place where they come, and it is said they will never come again.

To Keep Hams in Sumner.—Take them early in Spring, and pack them in barrels with oats, barley, bran, or anything of the like, to protect them from flies etc., and they will keep good.—Another sure way is to rub the hams with pulverized nitre; let them remain in the cellar three days, smoke a barrel three days, and make a pickle of salt and sugar, put in your hams and the work is done for the year.

Simple Mode of Purifying Water.—A tablespoonful of powdered alum, sprinkled into a hogshead of water, and stirred, will in the course of a few hours precipitate to the bottom all the impure particles and leave the water as clean and pure as spring water. Four gallons would need but a teaspoonful.

A Simple and Easy Method to Extract Grease spots.—If the spot is small and light, simply laying magnesia on both sides, and warming it at the fire will do, by repeating it. But if larger set on a warm iron. The pipe stems are surer for a large spot.

The Red Ant.—Where they are troublesome, it is said that sage leaves fresh picked, will keep them away if scattered in places you wish to protect.

Poultry.—No poultry should be kept longer than three years. The Poland topknots are considered the best for laying, and are the most hardy. They should be kept in winter where it is warm, have plenty of food and water, a box of gravel and lime to wallow in, and to pick from; some fresh meat when they cannot get insects; the scraps from tallow factories are good, and you will have no lack of fresh eggs.

The Benefit of Toads.—Never destroy them, keep them in your garden to destroy bugs and fleas. They will do more to preserve a garden than a man from insects.

Blue Ink Spots.—Blue ink should be first washed in sweet milk, and then rub strong soft soap on the spot and it will soon disappear.

Staggers in Swine.—Before giving anything, pour soft oil on the issues of their legs, and rub them well, then give as much new rum and pepper as you can make them take with a spoon. This it is said has cured those that were nearly dead. No time should be lost in giving something heating within.

Gapes in Chickens.—A preventive is said to be, vinegar that has stood in iron, to put a little in their food every few days. It is caused by worms in the throat, and it is said there is no effectual remedy better than giving sulphur in their drink, a pepper corn occasionally. They may be reached and taken out of the throat with the end of a feather.

To Temper New Ovens and Iron Ware.—Before new ovens are used, they should be heated half a day and then put up the lid to keep the heat in. When heated the second time, they may be used for baking. If not treated in this way they will never retain heat well.

New flat-irons should be heated half a day before they are used. Iron ware of all kinds, and stoves should be heated gradually at first or they may crack. Cold water if poured on hot iron will crack it.

To Relieve Choked Animals.—Take a flexible rod about four feet long, and three-fourths of an inch in diameter, wind on the butt end, tow or cotton, and tie a rag over that and grease it. To keep the mouth open place a piece of hard wood one foot long, four inches wide, one inch think with a hole bored in the centre for the rod to pass through, and then push it gently down the throat, and it is said to be always effectual and to give immediate relief. It is also said that a round stick about the size and length of a rolling pin with a cord tied in the notches in the ends, placed in the animal's mouth and fastened to each horn, will, if allowed a little time, unchoke them and save the suffering creature from a lingering death.

Cough in Horses.—It is said that the small twigs of cedar chopped fine and mixed with their grain will cure a cough, and that has been used with complete success.

An Insect Trap.—Scoop out the inside of a turnip, scollop the edges, and place it downward on the earth. The insects will pass into it as a place of retreat through the holes, and the cucumbers, squashes, melons, etc., may soon be clear of them.

Red Raspberry Leaves.—It is asserted that the fine green leaves of the red raspberry gathered in a fair day, and cured in an open room, are not inferior to the China teas.

THE THRIFTY FARMER.

The provident and thrifty farmer adopts three rules for regulating his business, which he observes himself and enforces on those around him, viz: to do everything in the right time, convert everything to its proper use, and put everything in its proper place.

He buys only the improved breeds of cattle, horses, sheep, and swine, and keeps no more than he can keep well, either in summer or winter.

He always drives on his work, and never lets his work drive him.

His animals are never under fed or overworked.

His out-houses, wood-shed, poultry-house, pig-pen, wagon-house, spring-house, and corn-crib, are nicely white-washed on the outside, and kept clean and neat within.

He has a tool-house, and a place for every tool in it, which may be wanted for any ordinary farm purposes, such as mending implements, making axe or hoe or fork handles, &c., and also for stowing carefully away such as will not be wanted for another season.

He has sheds around his barn-yard, to protect his cattle from the weather, and warm, ventilated stables for his cows and young stock, and also a shed to protect his manure heap.

He has leaves or other refuse vegetable matter to gather with soil from his headlands, convenient to his barn-yard, to compost with his manure heap through the winter.

He does not allow the liquid manure to escape into the nearest stream, a quarter or half a mile from his barn-yard.

His barn, and sheds, and dwellings are all supplied with good spouting.

His fences are always in good order, and materials for repairing or renewal are collected and made during the winter.

His wood-shed is supplied with wood cut in August, always one year ahead.

His wife never scolds, because she never has occasion to.

Her cellar and pantry are always supplied with the needful raw material, which she works up into a palatable form to fill up vacuums at meal times.

Heavy bread, cold buckweat cakes, and rancid butter, are novelties which her gude man and the children have heard tell of by some of the neighbors, but have never seen.

He considers it a duty to promote the circulation of agricultural papers, and has saved himself some hundreds of dollars by following their advice.

His crops are always equal, and often better than any in the neighborhood, and are kept clear of weeds.

He watches the market and sells his crops at the highest prices.

He makes it a rule always to spend a little less than he makes.

Himself and wife are both industrious, the children are brought up in the same way, and are not allowed to shoot the birds, smoke segars, or chew tobacco.

He buys and sells on the cash principle, and thus saves himself from losses and bad debts.

He has a large fruit orchard, well supplied with every variety of fruit to ripen in succession.

He studies the theory as well as the practice of farming, has cleared off the last 100 dollars of mortgage, and is seriously talking of making a bid for his neighbor Sloven's farm, which is up at Sheriff's sale.

He goes to church on the Sabbath, minds his religious duties, and brings up his children to do the same, lives respected, and dies regretted, as a useful man and good Christian.

Farmer's Magazine.

THE THRIFTLESS FARMER.

The thriftless farmer provides no shelter for his cattle during the inclemency of the winter; but permits them to stand shivering by the side of a fence, or lie in the snow, as best suits them.

He throws their fodder on the ground, or in the mud, and not unfrequently in the highway; by which a large portion of it, and all the manure, is wasted.

He grazes his meadows in fall and spring, by which they are gradually exhausted and finally ruined.

His fences are old and poor, just such as to let his neighbor's cattle break into his field, and teach his own to be unruly and spoil his crops.

He neglects to keep the manure from around the sills of his barn—if he has one—by which they are prematurely rotted, and his barn destroyed.

He tills, or skims over the surface of his land, until it is exhausted; but never thinks it worth while to manure or clover it. For the first, he has no time, and for the last he "is not able."

He has a place for nothing, and nothing in its place. He consequently wants a hoe or a rake, or a hammer, or an augur, but knows not where to find them, and thus loses much time.

He loiters away stormy days and evenings, when he should be repairing his utensils, or improving his mind by reading useful books or newspapers.

He spends much time in town, at the corner of the street, or in the "rum holes," complaining of hard times, and goes home in the evening, "pretty well *tore.*"

He has no shed for his fire-wood; consequently his wife is out of humor, and his meals out of season.

He plants a few fruit trees, and his cattle forthwith destroy them. He "has no luck in raising fruit."

One-half the little he raises is destroyed by his own or his neighbors' cattle.

His plow, harrow, and other implements, lie all winter in the field where last used; and just as he is getting in a hurry, the next season, his plow breaks because it was not housed and properly cared for.

Somebody's hogs break in, and destroy his garden, because he had not stopped a hole in the fence, that he had been intending to stop for a week.

He is often in a great hurry, but will stop and talk as long as he can find any one to talk with.

He has, of course, little money; and when he must raise some to pay his taxes, &c., he raises it at a great sacrifice, in some way or by selling his scanty crop when prices are low.

He is a year behind, instead of being a year ahead of his business—and always will be.

When he pays a debt, it is at the end of an execution; consequently his credit is at a low ebb.

He buys entirely on credit, and merchants and all others with whom he deals charge him twice or thrice the profit they charge pompt paymasters, and are unwilling to sell him goods at any cost. He has to beg and promise, and promise and beg, to get them on terms. The merchants dread to see his wife come into their stores, and the poor woman feels depressed and degraded.

The smoke begins to come out of his chimney late of a winter's morning, while his cattle are suffering for their morning's feed.

Manure lies in heaps in his stable; his horses are rough and uncurried, and his harness trod under their feet.

His bars and gates are broken, his buildings unpainted, and the boards and shingles falling off—he has no time to replace them—the glass is out of the windows, and the holes stopped with rags and old hats.

He is a great borrower of his thrifty neighbor's implements, but never returns the borrowed article, and when it is sent for, it can't be found.

He is, in person, a great sloven, and never attends public worship; or if he does occasionally do so, he comes sneaking in when the service is half out.

He neglects his accounts, and when his neighbor calls to settle with him has something else to attend to.

Take him all in all, he is a poor farmer, a poor husband, a poor father, a poor neighbor, and a poor Christian.—*Farmer's Magazine.*

LUCERN—ITS CULTURE.

This crop is daily gaining favor with American farmers, and it succeeds well in many localities we are happy in being able to place before our readers the following admirable article, giving full directions for its culture, use, &c.

Lucern, Alfalfa clover, Alsace, and many other crops intended for grain feeding, should receive more attention. In a country where labor is as expensive as with us, all such crops when once established prove economical, occupying but little land for great results, and calling for less cultivation, except during the first and second years of their being established, than most other crops.—[Ed.

"Lucern is a deep rooted perennial plant, sending up numerous small and tall clover like shoots, with blue or violet spires of flowers.—It is a native of the south of Europe, and appears, to be acclimatized in the warmer parts of England. Lucern or Medic is highly extolled by the Roman writers." "Lucern is much grown in Persia and Lima, and is mown in both countries all the year round: it is also of unknown antiquity in Old Spain, Italy, and the South of France, and was introduced to England from the latter country, according to Miller 1657."

Columella speaks of it as the choicest of all fodder, and lasting many years; that it may be cut from four to six times annually: that it enriches the land upon which it grows; that it fattens healthy cattle, and is a remedy for sick ones; and that the produce of one rood will keep a horse the whole year.

I cannot admit the full force of the latter remarks; but I know it to be a most valuable "artificial grass," and worthy the attention of every cultivator; and it has, as a plant, become so hardy, that no great apprehensions need exist as to its successful cultivation on all suitable soils in this country. The soils best adapted to its growth are I believe, a deep mild loam on a chalky sub-soil; but all lands that are well drained and suited to the growth of wheat or turnips will do well for lucern; they must, however, possess fertility and depth, and the richer the better.

The preparation of land should be by deep plowings; it must be brought to perfect culture, and be cleansed from every weed, as these are very detrimental to the young plants. The pulverization should be complete: and when the soil is rendered as fine as possible, it should be supplied with a heavy dressing of rich, well-fermented dung—this to be immediately plowed in, the land rolled down, and all to be finished by the latter end of April or beginning of May.

Seeding.—The seed should at once be drilled in, at the rate of sixteen pounds per acre, at intervals of nine or ten inches. If sown broadcast, about 18 pounds should be the seeding per acre. Drilling, however, is by far preferable, as offering much greater facilities for cleaning the crop, and other subsequent management.

It is not an uncommon practice to sow lucern upon a corn crop. This I think very objectionable. It is in its early stages of very tender growth, and require every attention and advantageous nursing that can be given to it as a crop; but when once it has secured a good hold upon the soil, it is one of the hardiest and most productive of fodder crops. The great desideratum is to procure a good plant in face of its numerour enemies—the fly, slug, beetle, grub, wireworm, and last, though not least, weeds—all very destructive; and on that account, I strongly urge the above course as most likely to secure a good and permanent plant.

Subsequent Management.—This will mainly consist of repeated hand-hoeings, forkings, and pickings, together with a periodical supply of rotten dung, to be well forked in. Harrowings are to be deprecated, though constantly practiced: it may be a cheap way of tearing up surface weeds; but it also greatly injures the lucern plants, and, of course, renders the cuttings less productive. In the third or fourth year after drilling, the crop may be very greatly improved by hoeing up every alternate row: it will by this time have attained sufficient growth and strength of plant to fill up the intervals with its luxuriant herbage, and may then be more economically cleaned and better cultivated by the horse hoe and ridge-harrow. The plant will also grow more vigorously, and yield more abundant fodder. As a top-dressing, gypsum stands first, at the rate of three to five cwts. per acre applied when the herbage is growing freely.—The saline mixtures come next, and most of the artificials used as manures are beneficial; but being a deeply tap-rooted plant, they are of little value as compared with good farm-yard dung put to the roots. Great care is required to keep the crop clean, as it cannot long exist amidst grassy weeds, neither can it bear depasturing any more than a carrot-bed; for if once the head or eye is eaten, the root is almost certain to die. If, however, the crop is well managed, and duly cleaned and manured, it will continue to yield large supplies of very nutritive fodder for ten or twelve years in succession, and the cuttings after the first year may average from 3 to 5, each cutting amounting to from 3 to 5 tons of green fodder per acre. It will frequently be ready for the first cutting by the latter end of April; and its growth is sometimes so rapid as to attain one-half inch in height per day, for 30 or 40 days together. This, I would observe, is only attained in row culture. On the broadcast system, it does not grow with such rapidity: of course cuttings are less frequent and also less abundant, and its earlier destruction more certain.

I do not know of any domestic animal that does not manifest a decided partiality for fresh cut lucern. They may be seen weeding it out from other grasses, and eating it with the greatest relish. Horses, cattle, sheep, pigs—all alike do this. For milch cows it is superior to clover in every particular, causing an increase in the quantity and quality of both milk and butter.—In this respect it cannot be too highly recommended to cottagers "who keep their cow," a rood of land being sufficient to grow food for one cow; and to all occupiers it must form a very valuable addition to their ordinary supplies of green food: to those in particular who adopt the soiling system it is almost indispensable, partly on account of its amazing produce, and partly as a wholesome and highly-nutritious change of food. Much has been written relative to its transplantation to produce a crop: it will undoubtedly produce a crop in this way: but it is undesirable, except to fill up old gaps and the like, as the general crop begins to decay; this however, is of very doubtful efficacy. It may be and frequently is, sown with an ordinary spring crop, as barley, oats, early peas, flax, buckwheat, &c.; but I have no hesitation in saying, that it is the best, and eventually the most profitable, course to prepare the land, especially for the lucern crop, and put it in alone. I have named the month of April as the best time for sowing this crop, but it may be deferred so late as August; however, the earlier it is sown in the intermediate months the better: that sown in April would yield one cutting in September, and yet be strong enough in plant to abide the winter. It is seldom grown for a seed crop in this country: this is generally imported, and chiefly from France. I need not observe that most plants die after producing their seed; and although this is not the case to its full extent with lucern, still it is irretrievably injured by taking the seed; hence it should not be taken until the last year it has to stand: it should be once cut, and then allow to produce its seed, which, when ripe, may be cut and managed in the same way as the clover crop, which mode has been described in my previous papers. It is also seldom cut for a hay crop, for which it is in fact not well adapted, its chief value being for soiling as a green herbage crop. It is sometimes greatly injured by mildew, for which it appears to me, there is no preventive or remedy. Caterpillars will attack it in great numbers—in such case, it should be all cut at once, and the land hoed and well raked, or, in such an eventuality, a light harrowing might be allowed, as it is important to destroy these marauders instantly.—Stock, when feeding upon it are not so liable to colic, or to become hoven, as when feeding upon tares or clover; it is nevertheless, desirable to cut it a few hours before required for use?

—*Farmer's Magazine.* P. F.

COVERED BARN-YARDS.

We copy the following article from the transactions of the Royal Agricultural Society, being an extract from a paper of Lord Kinnard.

This experiment, although not precisely a fair one, still goes materially to establish the fact that covered dung is the most profitable as manure. Its unfairness consists in not giving due credit to the covered dung. It will be observed that the same number of loads were used of each, covered and uncovered, while every experimenter is fully aware that with covered dung, on which its own leaching is returned, to prevent fire-fanging, the larger amount in bulk will exist, and hence the farmer with the covered barn-yard or compost heap, will have more loads of manure than his more negligent neighbor, and therefore, addition to the more powerful effects, should be added the greater quantity.—Ed.

He took two lots of cattle; one lot was fed in the "byre" or stable, and the manure thrown into open yard in which were twelve young cattle, getting a full allowance of turnips. The other lot were fed in a covered yard, and the manure left under them. Two hundred loads of the uncovered manure were drawn out in the winter, and put in one heap, well pressed down by the carts driving over it when emptying, and then cover top and sides with soil, road-scraping, &c. The heap was turned over as usual, a week before using. The dung in the covered yard was taken direct to the field and plowed in, " being quite well enough made for the crops intended.

A field of 20 acres "of very equal quality" was selected for the experiment. Half of it was dressed with the uncovered, and the other half with the covered dung, both at the rate of 20 cart loads to the acre. Both were planted at the same time, with the same kind of potatoes. Both did equally well until the latter end of July, when the potatoes on the uncovered dung began to droop and decay—while on the half of the field manured with the covered dung the tops still retained their strong, dark green color.

The yield per acre was: With the nncovered dung, 17,077 lbs.; with the covered dung 26,305 lbs.

The same land was sown with wheat after the potatoes, and 336 lbs. of Peruvian guano sown per acre on each portion.

The wheat on the land manured with the uncovered dung, was, per acre, 42 bushels, and 3,432 lbs. of straw. With the covered dung, 54 bushels and 4,730 lbs. of straw.

"HE'S NOTHING BUT A FARMER."

Said a little Miss, a few evenings since, in a ball-room, as she scornfully curled her pretty lip on being introduced to a fine, generous, open-hearted, young fellow, whose broad and expansive forehead was the symbol of his broad acres. "He's nothing but a farmer." And who was she that looked thus disdainfully on one of God's nobleman? She was the daughter of a broken merchant whose fortune had been ruined by the extravagance of a wife, and foolishly proud daughter. Though her father's heart had been by misfortune—and he had paid the penalty of extravagance by incarceration in the home prepared for criminals—his daughter had not yet learnt the difference between pride and worth—extravagance and wealth. The nobleman who eat the bread of industry, and looked every man in the face, with an independence which said "I owe you nothing," was in her estimation "*only* a farmer."

Did those upstart fools, who are characterized as "codfish aristocracy"—having more *smell* substance—ever read, even their bibles, they would find that God himself has selected his prophets, and kings from among farmers. Noah was a husbandman, and planted a vineyard—Abraham was rich in cattle, and Lot had flocks and herds—insomuch that there was not pasture enough for both, and they divided the country, Lot selecting the plains of Jordan, and Abraham taking the hilly country of Canaan.

Jacob was a great cattle grower, as he presented Esau with five hundred head of cattle.—Moses was a wool-grower—Gideon was taken from his threshing-floor. Saul was a herdsman even while he was king. David was a shepherd, and was taken from that occupation to be king of Israel, and the ancestor—according to the flesh of the Messiah—Uzziah was a cattle-grower, Elisha was plowing with twelve yoke of oxen (probably breaking up prairies, or turning up subsoil) when Elijah cast his mantle on him, a prophet.

And yet, though God honored the husbandman—selected his kings and prophets from among the farmers, and even carried on agriculture on a small scale, himself—(having "planted a garden eastward of Eden")—the small fry, codfish aristocracy, turn up their noses, that were never wiped with "*a paid for* pockethandkerchief" and cry out, "Oh, he is nothing but a farmer!"

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Farmer's Arithmetic.—Perhaps in no one thing is the "arithmetic" of the farmers put to a severer test than in ascertaining the value (perhaps with cold fingers) of a given number of pounds of hay at a given price. To those I would recommend the following rule of Adams, as easy, practicable, and infallible:

Rule.—Multiply the number of pounds of hay, or coal, by one-half the price per ton, pointing off three figures from the right hand. The remaining figures will be the price of the hay, or coal, (or any other article by the ton,) in cents and mills, which can easily be reduced to dollars.

Example.—What will the cost of 658 lbs. of hay, at \$7 50 per ton?

Solution.—\$7.50 divided by two, equals \$3.75—by which multiply the number the number of pounds, thus:

658
\$3.75

3290
4606
1974

\$2.46‖750

The principle in this operation is the same as in interest—dividing the price by two gives us the price of half a ton, or 1,000 lbs., and pointing off three figures to the right is dividing by 1,000—the same as in interest. The result above we have found to be \$2,46, which is correct. And now, brother farmer, get your pencil and see if you can find the above rule in fault. —*N. F. Farmer.*

Farmers.—Adam was a farmer while yet in Paradise, and after his fall, commanded to earn his bread by the sweat of his brow.

Job, the honest, upright, and patient, was a farmer, and his endurance has passed into proverbs.

Socrates was a farmer, and yet wedded to his calling the glory of his immortal philosopy.

St. Luke was a farmer, and divides with Prometheus the honor of subjecting the ox for the use of man.

Cincinnatus was a farmer, and the noblest Roman of them all.

Burns was a farmer, and the Muse found him at the plow, and filled his soul with poetry.

Washington was a farmer, and retired from the highest earthly station to enjoy the quiet of rural life, and present to the world a spectacle of human greatness.

To these names may be added a host of others who sought peace and repose in the cultivation of their mother earth; the enthusiastic Lafayette, the steadfast Pickering, the scholastic Jefferson, the fiery Randolph, all found an Eldorado of consolation from life's cares and troubles, in the green and verdant lawns that surrounded their homesteads.—*N. E. Far.*

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Another Remedy for Scratches.—Mr. Editor: I noticed in your paper several receipts for the cure of scratches in horses, among them was that of a solution of lime, which, if it had appeared a little sooner, I should have been tempted to have tried on a three years old colt whose lameness, which appeared about three weeks since, was found to be caused by the scratches. After the repeated applications of remedies said to cure the disease for about a fortnight, with apparently no effect, I applied a coat of zinc paint and oil. By examination the next day after the priming or application of paint, I found signs of amelioration of the condition of the sores, and in a day or too decided signs of improvement, and now, although it has been but a few days, the colt is free from lameness, and the sores are healed. The remarkable rapidity with which this cure was brought about was evidently owing to this simple and easily applied remedy, and the object of speaking of this remedy, is the good of those horses whose owners are ignorant of its good effects, in this disease. R. K. W.

THE FARMER'S JOURNAL.

RALEIGH, N. C., SEPTEMBER, 1854.

☞ *All letters on business or subscriptions, must be addressed to W. D. Cooke & Co., and communications for the Journal to Dr. Jno. F. Tompkins, Raleigh, N. C.*

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THE NEXT LEGISLATURE. WHAT WILL IT DO FOR THE FARMING INTEREST OF THE STATE?

We have been asked the question very frequently within the last year, what the next legislature will do for the advancement of the farming interest of North Carolina. Whether anything will be done or not we are unable to say, but that there is need of something being done cannot be denied by any one. We are very much afraid that the same cry will be raised again as was made during the last session, that the State was largely in debt and that heavy appropriations were yet to be made in order to carry out such a system of internal improvements as the condition of our State required.—We have ever been the friend of internal improvements by the State, and shall continue to be of this opinion, but notwithstanding we are at the same time the devoted friend of agricultural advancement. What is it that demands internal improvements in any State, if it is not chiefly the agricultural interest. If the farmer enlarges his crops and has not the means for getting them to market he sees and feels the need of some more efficient means, and is ready to aid in the establishment of railroads, plank-roads, canals or whatever means may be required in the section of country in which he lives; so that it is the increased prosperity of the farming interest that gives rise to the necessity of internal improvements, and hence it must be clear to every man that it is good legislative policy to do everything possible to improve the agricultural condition of the State in order that a system of internal improvements may succeed. But it has been a great misfortune with the people of North Carolina to be represented in the Legislature by many men who, when any measure was brought before them for the good of their constituents, would ask themselves the question whether or not it would destroy their popularity at home, instead of asking whether the general interest of the State was to be adorned by it or not. Political elevation and not the welfare of North Carolina has been uppermost in their minds. When a measure is proposed for the advancement of our State the leaders of each party, eye closely those of the other, and before giving it their sanction use every possible means to ascertain whether it will be acceptable to the majority of the people of the State. We say again, that we hope that something will be done for the advancement of agriculture in the State, what ought to be done we will not suggest. And here let us remark that if any of those members who dodged so quickly at the formation of the State Agricultural Society are in the next legislature they need not "slope" again, for it is the will of the people, that the farming interest of the State should receive aid by legislative enactment. Though hundreds of thousands of dollars may be appropriated for internal improvements we shall strenuously contend for ten thousand dollars to be appropriated for the advancement of agriculture, and in our efforts we shall, we think, have the aid of some of the most distinguished members of both branches of the Legislature.

THE IMPROPRIETY OF TURNING STOCK UPON FIELDS.

Whenever politicians wish to impress any particular point upon the minds of the people, the expression "keep it before the people" is used in order to attract the attention of those upon whom it may be desired to operate. In as much as frequent admirations are required to attract the attention of farmers to politics, of which they are generally so fond, it may be very justly concluded that it is highly important, in writing upon agricultural improvement, that they should very frequently be called on to notice and read upon particular subjects. We have before cautioned our farmer readers against the too common practice of turning stock upon their fields after taking their crops from them; yet we must call their attention to the subject again, as we see in our travels over various parts of the State that many farmers still pursue this murderous plan. If any farmer will reason with himself but for a moment, he must, we think, see the loss that he sustains every year, by allowing stock to run upon his cultivated fields. Land like animals, requires to be fed if it is expected to continue to produce good crops. Such being the case, does it not seem foolish to turn stock of different kinds upon the fields and let them cut the stubble, stalk, and vine, and after a part of these have been required to nourish the animal, the remainder is to be returned to the field the next year, in the shape of barn yard manure, and that greatly lessened in value by neglect. But says a farmer upon reading thus far, what shall I do with my cattle and hogs? What shall I feed them with? To such an enquiry we would reply by saying that if a farmer cannot keep his stock without resorting to this means he had better get clear of it. If his cattle and hogs are to be supported at the expense of exhausting his land it would be decidedly good policy to get clear of them. The farmers of North Carolina, have too much stock as well as land, and we would advise them to get clear of at least one half their stock and land, and their happiness would be greatly enhanced and their profits enlarged.

THE STATE FAIR.

It will be but a very short time before the second annual State Agricutural Fair is held in North Carolina, and we hope to see a very great increase in the number of persons in attendance as well as a larger number, and a better quality of the various kinds of stock. We think that we stood alone in relation to the first Fair being a creditable one every person with whom we met where speaking of the Fair would express the opinion that it would be a failure, and what little State pride we had, would be wounded on that occasion. But was this the case; by no means, for we never saw brighter faces than met our view in every direction of the first day of the Fair. Old and young persons, male and female could not refrain from admiration. We regret to learn that many did not receive such accommodations as they expected on that occasion, but we feel sure that we can say with truth that at the next Fair in October there will be the most ample accommodations for a much larger number than were at the first Fair. The people of Raleigh did not expect such a crowd as came, for it was told every where in the State that it would be a failure, and even in Edgecombe it was positively asserted that there would be "No Fair."

There is now in and about Raleigh a very different feeling in relation to the Fair from what there was last year this time. Now that the State elections are over the political papers have some space to devote to the publishing of the premium list. But this feeling of which we speak is not, we regret to say, unanimous, for we were told a few days since that a very wealthy man in Wake county, stated that a few more State Fairs would ruin our country. This man we are glad to say has no children to raise and has but little if any influrence over any one, his money is his god and he devoutly worships it.

A VARIETY OF CROPS.

We have for a long time contended that our farmers ought not to confine themselves to one particular crop, for sale and as a source of profit, but having, as we have, a climate and soil capable of producing such a variety of crops, it must be good policy to have a variety of crops. Instead of depending solely on corn or cotton or wheat; the farmer should have some of each of these besides other crops, and in this way he will be apt to get a better remuneration for his labor in the space of five years than he would were he to confine himself to one particular crop for exportation. We have seen farmers who make large quantities of cotton and do not make corn enough to support their families, and in many instances those who pursue this course have been badly bit, for the cotton selling at a low price, and the corn at a high one, will not foot up so handsomely.

EDMUND RUFFIN, OF VA.

We had the very great pleasure a few days since of receiving a visit from the gentleman whose name heads this article, and never did we enjoy a conversation more, with any one than with him. Mr. Ruffin is emphatically the father of agricultural improvement in the South, and more especially in his own State. He is really the greatest man now living in our republic—he has truly been of service to his country—he has caused "two sheaves of grass to grow where but one grew before." The many fertile fields of Virginia which once were barren hills and vallies, are lasting monuments of his greatness; and though none others will even be needed to perpetuate his memory, yet we think that whenever he shall have done with the things of this world the people of the Southern States ought to erect a splendid monument over his grave as a token of gratitude for the many enjoyments which his labors have afforded them. But we hope that he may be spared many years yet. Though his hair is silvered by age he enjoys fine health, and the enthusiasm of his youth in behalf of agricultural improvement still burns bright in his soul. We hope that the people of the old North State will have the pleasure of seeing Mr. Ruffin at our next State Fair.

THAT 50 DOLLAR SILVER PITCHER.

We neglected to state in our last number, when giving notice of the handsome prize which we offered for the largest number of subscribers to the *Farmer's Journal*, that persons who were contending for the pitcher could send in names from time to time between this and the Fair and we will keep a correct account of names sent by each person. The terms will be $20 for every thirty subscribers, which will be the lowest rates. We shall keep open the proposition until Thursday morning of the State Fair, at which time we shall decide to whom the splendid Prize belongs.

☞ The papers of the State generally will please copy this.—[Ed.

THE VALUE OF OUR PAPER INCREASING.

In the next, or October number of "The Farmer's Journal" we shall lay before our readers, notes taken by Mr. Edmund Ruffin, while on a recent visit to the far famed Edgecomb county. Besides this, we shall frequently receive communications from this highly distinguished farmer which must greatly enhance the value of our paper, and will be affording new inducements for our farmers to patronize the only agricultural paper in our State. We hope that those of our subscribers who come to the State Fair will take the trouble to bring us a few names to be added to our list. If the farmers of North Carolina will only stick up to us, we pledge ourself to furnish as good a paper as is published anywhere.

THE UNION AGRICULTURAL SOCIETY AGAIN.

We would call the attention of our readers to an article from a correspondent signing himself a "Cotton Planter," in this number of our paper, in relation to this impudent move on the part of the people of Petersburg to break down the State Agricultural Societies of North Carolina and Virginia. The writer of this article referred to is a Virginian by birth, though raised in North Carolina, and he is regarded as a good farmer, and a very accomplished gentleman.—By the way, since the August number of our paper has been published we have had occasion to visit different parts of the State of North Carolina, and we have taken some trouble to ask gentlemen who are recorded as officers of this society whether it was done with their consent and approval, and they have invariably replied that they knew nothing of it, until they saw their names announced in the papers. We have been told by many persons, that they highly approved of our views in relation to this matter, as expressed in the "Farmer's Journal."—We hope that the originators of this scheme will see the folly of their course, and abandon it.—Instead of accomplishing what was expected by those who began it, we feel certain that it has created a prejudice among our people against Petersburg, which did not exist before.

THE GRANVILLE COUNTY FAIR.

We take pleasure in publishing a notice of the first Fair held under the direction of the Granville county Agricultural Society at Henderson. The location is a good one, and there will be sure to be a large attendance, and from what we know of the farmers in that section, the exhibition will be a highly creditable one. The farmers of Granville are doing just what we predicted they would do, going ahead in agricultural improvement. The address will be an able one from what we have heard of the talents of the speaker, Mr. Reade of Person Co. This would be a most excellent time for those who compete for the silver Pitcher which we offered for the largest number of subscribers to our paper.

Bound copies of Vol. I. and II. of the *Farmer's Journal* to be had at $1 each, sent free of postage to any post office in the State, by applying to W. D. Cooke & Co., Raleigh, N. C.

Let every farmer in the State bring something to the Fair.

Communications.

For the Farmer's Journal.

EDGECOMB County, N. C.,
August 10, 1854.

DR. TOMPKINS,

For more than two years, I have been watching the progress of the "Farmer's Journal," having my secret doubts and fears of its success. I have looked with admiration and wonder upon the extraordinary energy which you have displayed in bearing up so nobly under the cold indifference and neglect heretofore shown by the farmers of our State towards your enterprise.

But, sir, I am glad to see the "Rubicon is crossed" with you, and that the third attempt to establish an agricultural paper in North Carolina is now certain of success. How easily might all the anxiety and restlessness which you have felt been obviated if the farmers of North Carolina had done their duty in the beginning, and gone about among their neighbors and advised those who were prejudiced against book farming to take the "Farmer's Journal." If there be any farmer who still doubts the advantages to be derived from reading agricultural papers, let him come to Edgecomb County and mingle with our best farmers, and learn their opinions of book farming. The only barrier, sir, that now rests in your way is one which might be easily removed by the farmers of the State. What I refer to is the great reluctance with which farmers write for your paper. This I hope will not continue to be the case, for if the farmers of the State generally do not contribute, I think that those of your own native county, Edgecomb, should not stand back. That Edgecomb county is first in point of agricultural improvement, is conceded on all hands, and it is incumbent upon those of our farmers who can write to point out to the balance of the State the means by which they have achieved so much in so short a time. There are many farmers in our county, men of education and experience, whose productions would be read with interest, and would be sure to exert a happy influence upon the farming community of our State. I say I am surprised that you do not receive communications from such men as R. R. Bridgers, D. W. Bullock, R. E. McNair, Jesse H. Powell, Dr. J. J. Phillips, and Messrs. Dancy & Norflet, all of whom, besides many more in our county are highly capable of interesting your readers with the results of experiments made by them. By the way I must say something in relation to Panola, the model farm of Messrs. Dancy & Norflet near Tarboro. The system of farming practiced by these gentlemen has been rather of a novel character to the most of our citizens, and the opinion has been expressed by many, that it would not succeed. But the present crop will, I think, clearly satisfy those disposed to doubt that it is the true system of success in agriculture after all, and this farm and its management will I think, be productive of much benefit to our whole county, I hope to see our county well represented in number of persons, as well as in number of stock at the State Fair in October, and I am very sure that if our farmers do their best, they will bring home a goodly share of the premiums.

In conclusion I will say that I am making some experiments during this season, which I intend to report to you for the benefit of those who may wish to derive advantage from my success or failure. PINEY WOODS.

For the Farmer's Journal.

Mr. Editor: In your August number of the Journal, I was pleased to see the manner in which you animadverted upon the so called Virginia and North Carolina Agricultural Society, at Petersburg, Va. This association, gotten up purely from local considerations, arrogates to itself this high-sounding title when it is well known, that it is hostile to the interests of the State Societies of both States. An effort was made during the continuance of the Virginia State Fair, at Richmond last Fall, to defeat the location of the Fair permanently at Richmond, and hold it alternately at other places in that State. This effort made principally, if not entirely by citizens of Petersburg, failed. Being disappointed they have formed this hybrid society, and not content with setting up a rival fair within a few miles of their own State Fair, they appropriate the name of the State of North Carolina, with as little compunction as they have heretofore done to their planing machine companies. As far as their interference with their own State Association is concerned, I have nothing to do: I leave that to be settled between them and the parties most interested. I will only mention that in conversation with a highly respectable and intelligent gentleman of one of the Southern border counties of Virginia, he stated that he had been applied to, to become a member of the society and peremptorily declined on account of its manifest hostility and rivalry to their State Associations. If this be so, (and who, knowing all the circumstances, can doubt it?) with what grace can the citizens of Petersburg, in the State of Virginia, removed sixty miles from our borders, and free from our jurisdiction, assume the right to appropriate, and make capital out of, the name of our State, when we have a State Society, recently formed, needing, and eminently deserving support, and our county auxiliary Societies, also in a state of infancy and needing the fostering care of every true-hearted citizen. It is presumption that ought to be checked.

It gives me no pleasure, Mr. Editor, to speak harshly of Petersburg or its citizens. My business and social relations with that place are of a pleasant character, but they should bear in mind that patience, when too much abused, ceases to be a virtue. I do hope that the citizens of North Carolina, will without exception, withhold their names and means from this association, and will encourage their own county and State Societies. A TOBACCO PLANTER.

For the Farmer's Journal.

GRANVILLE FAIR.

The first Annual Fair of the Granville county Agricultural Society, will be held at Henderson on the Raleigh & Gaston Rail Road, on Wednesday and Thursday, the 4th and 5th days of October, 1854, E. G. Reade, Esq., of Person, will deliver the address on Thursday the 5th.

The regulations adopted by the State Society at Raleigh will govern as far as applicable.

Exhibitors who contend for premiums or diplomas are expected to become members of the Society, and are requested to report such articles as they may wish to exhibit to Mr. Thos. J. Blacknall Secretary, Henderson, by or before 9 o'clock on Wednesday the 4th October. All animals or articles must be labelled with the names and residence of the owner.

Officers will be in attendance to preserve strict order during the exhibition.

Persons from the adjoining counties, and from Petersburg, Norfolk, and Baltimore, are respectfully invited to join in the exhibition.

The members of the Executive Committe, to-wit: R. A. Hamilton, J. C. Taylor, J. C. Cooper, R. N. Herndon, W. W. Young, W. S. McLanahan, R. P. Taylor, J. Turner, J. B. Hobgood, Thos. Miller, R. W. Lassiter, S. S. Royster, Jno. Bullock, and Wm. A. Eaton, are requested to meet in Oxford on Tuesday 5th September.

R. A. HAMILTON,
Ch'm Ex. Com.

Granville, Aug. 22, 1854.

Miscellaneous.

SANITARY IMPROVEMENTS.

The following article by Cuthbert W. Johnson, Esq., F. R. S., partakes of his usual excellence. Those of our readers who are engaged in cattle breeding should peruse this article with care, nor is it less applicable for the restoration of health in the sickly parts of our country.—Hundreds of localities, which are now nearly valueless from the prevalence of fever and ague, might be rendered both fertile and healthy by a close observance of the rules here laid down.—Common humanity, as well as policy, calls upon our farmers to pay greater attention to the health of their animals:—[Ed.

It is not to the sanitary improvement of our dwelling-houses, but to the condition in which our live stock is often suffered to dwell, that I propose to address myself on this occasion.—That in many places much improvement is necessary on this head, no one for whom these observations are written will feel inclined to dispute. The traveler in the districts to which I have alluded beholds yards with heaps of horse-dung piled up to the level of the stable windows; the stables deep with accumulations of ammonia-evolving dung; the roofs, void of eaves-troughs, pouring streams of rain into the yard; the drainage of that collected by a pond of dark liquid manure, in which the cows are standing, the swine wallowing, and the thirsty stock consuming.

To the ill-effects of this state of things upon our domestic animals, let us now turn our thoughts. First, then, as to the effects of long-continued accumulations of dung in close buildings. Of the pernicious results of confining stock in this way we have the evidence of those who have the most carefully attended to the box-feeding system. These skilful feeders have found that it is almost impossible to keep animals confined in this way for a long time over their own putrifying excrements without their health being materially injured. The late Professor Youatt (On the Horse, p. 115) attributed to the ammoniacal exhalations in close stables the inflamation of the eye, to which our horses are often subject. The natural cleanliness of the horse, his objection to eat after other animals, his preference for soft water, are well known; and yet to confine him in places where every current of air comes to him surcharged with the gases of putrefaction, is deemed by many a matter of indifference. Then, again, as regards the sheep, whose native habitation is on the high and dry situated table-lands of Asia, how do we treat these? Follow a flock of Southdowns into the low-lying soils of civilized life; notice how they are confined in rich, rank grass, producing water-meads, or in deep fields of coleworts and turnips; penned in crowded folds and in sheep yards, over deep accumulations of their own dung.—Notice, I repeat, these things, and then let us consider if the sanitary conditions in which our live stock is perhaps of necessity placed, may not be improved? At any rate we can hardly too often ask ourselves the question.

As I have on another occasion remarked, that clean water is to be preferred to foul, even for the beverage of a hog, is now pretty generally understood, even in those precincts of the metropolis where the true principles of health are more studied in cow-keeping or pig-feeding than in the preservation of their owner's health.—Even animals have an instinctive knowledge of these things; for, as it is well said by Professor Lyon Playfair in a recent and most valuable report of the General Board of Health, horses have this knowledge in a remarkable degree; they love soft water, and refuse hard if they can possibly get the former. Hard water, indeed, produces a rough and staring coat in horses, and renders them liable to gripes. (This, too, was noted by one of the most celebrated of modern veterinarians, the late Professor Youatt.)—So much are race-horses influenced by the quality of the water, that it is not unfrequent to carry a supply of soft water to the locality of a distant race-course, lest there being only hard water, the horses should lose condition. Cleghorn states that in the island of Minorca, hard water causes diseases in the system of certain animals, especially of sheep.

It has been also observed that pigeons refuse hard water if they can obtain access to soft.—The preference which the horse very commonly shows to pond water, rather than to that procured from a well or a river, may often be explained in this way. The water of ponds is most commonly merely composed of the water which flows into it from land or surface drainage, which water, contrary to the generally received and apparently reasonable opinion, is upon an average much softer, and more free from the salts of lime than the waters obtained from either wells or rivers. Some late examinations instituted by the Board of Health have shown this in a very remarkable manner. It is observed in one of their reports (p. 85) "The observations already collected under the Public Health Act, of the comparative purity of different waters, appear to us to establish the axiom, that the shorter the space of land which water has to traverse, or the shorter the time which it remains upon it, the less will be the quantity of adventitious impurities which it will imbibe. We have had 424 different specimens of water from different parts of the country tested and we find that in respect to hardness the following are the results [a degree of hardness is equal to about a grain of chalk per gallon of water]: 1. Wells and springs (264 specimens) had an average hardness of 25.86. 2. Rivers and brooks (111 specimens) average hardness 13.05. 3. Land and surface drainage (49 specimens) average hardness 4.94."

If, again, we direct our attention to the effects of ill-drained lands upon the health of our domestic animals, we shall find there also much occasion for our serious inquiry. A lately published report of the General Board of Health contains many facts worthy of the farmer's consideration. They thus give the conclusions which they have obtained, as to the drainage of lands [*Report* 1854, p. 90]:

1. Excess of moisture, even on lands not evidently wet, is a cause of fogs and damps.

2. Dampness serves as the medium of conveyance for any decomposing matter that may be evolved, and adds to the injurious effects of such matter in the air; in other words, the excess of moisture may be said to increase or aggravate atmospheric impurity.

3. The evaporation of the surplus moisture lowers temperature, produces chills, and creates or aggravates the sudden and injurious changes or fluctuations of temperature by which health is injured.

The following are the chief agricultural advantages of land-drainage to individual occupiers or owners:

1st. By removing that excess of moisture which prevents the permeation of the soil by air, and obstructs the free assimilation of nourishing matter by the plants.

2d. By facilitating the absorption of manure by the soil, and so diminishing its loss by surface evaporation, and being washed away during heavy rains.

3d. By preventing the lowering of the temperature and the chilling of the vegetation, diminishing the effects of solar warmth not on the surface merely, but at the depth occupied by the roots of plants.

4th. By removing obstructions to the free working of the land, arising from the surface being at certain times, from excess of moisture, too soft to be worked upon, and liable to be poached by cattle.

5th. By preventing injuries to cattle or other stock, corresponding to the effects produced on human beings, by marsh miasma, chills, and colds, inducing a general low state of health, and in extreme cases the rot or typhus.

6th. By diminishing damp at the foundations of houses, cattle sheds, and farm steadings, which causes their decay and dilapidation, as well as discomfort and disease to inmates and cattle.

It is true that the valuable observations of the Board of Health are chiefly confined to the ill effect of damp resting places, bad air, and impure water to human beings; but how many of the following remarks of the report, to which I have before referred, well apply to the injurious conditions in which our domestic animals, and even our farm laborers, are placed :

" Within many of the towns we find the houses and streets filthy, the air fetid; disease, typhus, and other epidemics rife amongst the population, bring in their train destitution, and the need of pecuniary as well as medical relief, all mainly arising from the presence of the richest materials of production, the complete absence of which would, in a great measure, restore health, avert the recurrence of disease, and, if properly applied, would promote abundance, cheapen food, and increase the demand for beneficial labor. Outside the affected districts, and at a short distance from them, as in the adjacent rural districts, we find the aspect of the country poor and thinly clad with vegetation, (except rushes, and plants favored by a superabundance of moisture,) the crops meagre, the laboring agricultural population afflicted with rheumatism and other maladies arising from damp and an excess of water, which, if removed, would relieve them from a cause of disease, and the land from an impediment to production; and if conveyed for the use of the town population, would give that population the element of which they stand in peculiar need as a means to relieve them from that which is their own cause of depression, and return it for use on other land as a means of the highest fertility. The fact of the existence of those evils, and that they are removable, is not more certain than that their removal would be attended by reductions of existing burdens, and might be rendered productive of general advantage, if due means, guided by science and applied by properly qualified officers, be resorted to."

Later investigations of the subject have established two general conclusions applicable to the subject, that—

> In towns all offensive smells from the decomposition of animal and vegetable matter indicate the generation and presence of the causes of insalubility and of preventible disease, at the same time that they prove defective local administration :

And correlatively that—

> In rural districts all continuous offensive smells from animal and vegetable decomposition indicate preventible loss of fertilizing matter, loss of money, and bad husbandry.

As *sanitary* results of the examination of the various means in practice of collecting, removing, and applying town manures, it appears—

1. That it is preferable to incur the total loss as manure, of ordure and urine, or of animal and vegetable refuse in towns, than to allow it to be retained for occasional removal, to putrify and create noxious gaseous impurities, amidst or near dwellings.

2. That there have been no trials of chemical substances, as " deodorizers " or " disinfectants," made on a large scale, which have been satisfactory as preventives; that impurities are created before such means can be applied, and when they are applied, the labor of applying them, and the expense of the materials used, equal or exceed the proper cost of effectual arrangements for the immediate removal of all offensive matter.

3. That it is a primary condition of salubrity that all ordure or town refuse should be immediately removed from beneath or near habitations, and that this object may be the most completely as well as economically effected by removal in water.

4. That it is far less injurious to the public health to have the refuse of towns in water in the next river than underneath or amidst dwellings.

5. That the application of manures to the sur-

face of land by means of irrigation is less injurious than the application of the same quantities of manure in the common method as top-dressings; but that the common practice of irrigation with plain water is often productive of ague, and, when conducted near dwellings, is otherwise injurious to health; and that the creation of largely extended evaporating surfaces from sewer water near towns (though still far less injurious than the retention of refuse, and its decomposition within towns and underneath habitations) ought to be avoided.

6. That the necessity of any such exposure is avoided by the conveyance of sewer water in closed impermeable pipes underground, and by its distribution by steam power, or by gravitation, through pipes, by jets, after the method of distribution of garden watering, or by shedding from a hose, whereby the extent of exposure to evaporation is so far reduced in amount and time, and the absorption by the land so immediate, that it is, as in garden cultivation, inappreciable in its effect on the atmosphere, or on the health of persons exposed to it.

As *agricultural* results, it appears from these examinations—

1. That the applications of a considerable proportion of the manures of towns in the liquid form, that is to say, as sewer water, have produced heavier crops than any other known description of manure; and that the superiority of a four-fold production of grass above the ordinary growth on similar soils has been maintained for upwards of half a century by means of the application of the sewer manure of Edinburgh and Milan.

2. That the like increase of fertility has been obtained by a similar application of the common farm manures in the liquid form.

3. That the great increase of the fertilizing power of manures, by their proper application in the liquid form, has been displayed on various descriptions of soil, on sands as well as on clays and loams, laid down with various descriptions of arable cultivation, but more particularly with green crops, and that the quality as well as the quantity of the produce has been improved.

4. That the ordinary augmentation of produce by the full application of the fertilizing powers of liquified or liquid manures on grass land has four and five-fold above the ordinary amount of production in this country.

5. That the chief advantages of the application of manure in the liquid form consist in the economy of the manure, in the promptitude of its action, in the prevention of the loss which occurs by its drying when applied in the solid form, in the like prevention of injurious emanations while it is preserved in solution in water, and in its being better fitted for quick absorption, and more readily carried beneath the surface of the soil to the roots of the plants.

6. That the method of distribution of liquid manure by steam power through fixed and flexible pipes, by jets or by shedding, is cheaper and more effectual than any other yet practiced, particularly for distribution on an extensive scale and at considerable distances.

7. That this mode of distribution has great advantage over the ancient method of irrigation by means of water-meadows, in requiring less original outlay than the particular method usually available, requiring less water, and applying the manure with less waste and with less danger to the public health, in not impeding pasturage, in not confining the land to one description of cultivation, and in being applicable alike to arable and grass lands.

8. That the apparatus for the distribution of liquid manure by means of steam or other power, through fixed and flexible pipes, will be equally applicable to the distribution of water on a large scale at a cheaper rate than by any other method yet known of supplying water to plants.

9. That, by the provision of the apparatus for the distribution of the manures of towns on a large scale in the liquid form, the necessity will be avoided of any considerable outlay for machinery or fixed capital on the part of the owners or occupiers of land, previously to the adoption of the improved methods of culture consequent on the use of sewer manures.

10. That, whilst the proper drainage of the land diminishes the losses arising from an excessive moisture, from continued rain or excess-

ive floods, the apparatus of underground pipes, and the surface apparatus for the removal and aplication of sewer water or liquefied substances as manure, will equally serve for the application of simple water, and for the diminution of the losses and inconveniences which are occasioned to the agricultrist by the irregular falls of rain and long continued droughts.

The chief economical results of high cultivation, as in the examples cited, to the extent ot a four or five-fold produce, appear to be almost as if, for the payment of 6s. per acre of new annual changes for pipes, the fertility of three or four additional farms were put upon one; and also as if, at the same time, the fences and gates, and length of roads to be maintained, and the distance for the transport of materials and produce in the farm, and for other purposes, were reduced to one-fourth or to one-fifth of the ordinary proportions. In the neighborhood of towns the economy of space for cultivation has peculiar advantages.

The reader will thus note, that in attending to the sanitary demands of civilization, the Board of Health have been far from unmindful of the interests of agriculture. The ill effects, indeed, of a neglect of sanitary precautions, in the case of our domestic animals—of placing them in situations so unnatural and so foreign to their natural habits, is too important a question to need any apology for its repeated discussion. We are startled, in the case of the smaller animals, by the rapid mortality produced from a neglect of ventilation, and omitting a supply of clean water. The keepers of cage birds, for instance, know this, and *act* upon their knowledge. The great poultry breeders are aware of the losses they sustain if foul water is consumed by their fowls; clean water they deem an essential necessary of the yard. The rapidly produced diseases, from a neglect of such measures, are monitors that will not, in the case of these birds, be disregarded; it is only because the larger animals are not so easily destroyed that the ill effect is less noticed—their comfort and their natural tastes less studied by their owners.—*London Farmer's Magazine.*

HISTORY OF THE CATAWBA WINE.

Whoever lived in the city of Washington thirty years ago, will probably remember an old gentleman by the name of Adlum—Major John Adlum. He was then quite sixty years of age, brisk and lively in his deportment, full of revolutionary anecdote—in fact he had served in the revolutionary war—a pleasant companion, a warm friend, and an honest man. His residence was a few miles from Georgetown, D. C., where he had a small vineyard. Here he cultivated the social virtues and the Catawba grape, and made wine for his friends, and friends for his wine. He was poor and patriotic; but, as he sat in the shadow of his own vine, ate his own grapes, and drank his own wine, he was contented. Before this time the merits of the Catawba, either as a wine or table grape, were unknown. The Swiss settlers at Vevay, Ia., in "1825," established a vineyard, and made a red wine from the Schuylkill Muscated, or "Cape Grape," as it is now commonly called. Earlier than that, according to Redding, a vineyard had been established on the Kentucky river in 1797. This was unsuccessful. Still earlier we hear of wine being made at Gallipolis, Ohio, in 1796. We have Volney's authority for the truth of this; he tasted the wine, but did not express any great gratification from the fact. Still earlier we hear of the wines of Louisiana; and Sir John Hawkins, one of the heroes of the Armada, and the originator of the slave trade, drank wine made from a native grape in Florida, in the year 1564.

None of these wines, however, obtained much reputation; the American wines, destined to be *famous*, do not date beyond 1826. The Catawba grape was first discovered in Buncombe Co., N. C., in 1802—Buncombe since celebrated for orators. It was then known simply as a species of wild grape, and not esteemed for any peculiar properties. Nearly a quarter of a century afterward, Major Adlum found this grape in the garden of a German, near Washington. At this time he was experimenting with the wild grapes in the vicinity, and, taking some slips of the Catawba also, discovered, to his surprise and joy, what he had so earnestly desired, a native grape that would produce an excellent wine. In a letter, written shortly before his death, to Mr. Longworth, of Cincinnati, he says, "I have done my country a greater benefit in introducing this grape to public notice, than I would have done if I had paid the national debt." The future will verify the truth of these simple words.

The little vineyard near Georgetown was a patch of wild and scraggy looking vines; the soil was artificially prepared, not with rich compost, but with pebbles and pounded oyster-shells. But the most generous grapes thrive in a meagre soil, and yield a rich and abundant return for scanty nourishment. The vine is the poet of the vegetable world.

Meanwhile, Mr. Longworth was experimenting on a larger scale near Cincinnati. With unexampled patience he persevered in his object. Not only native, but foreign grapes, were tried and abandoned. Thousands of roots from Madeira, the finest grapes from Bordeaux and Burgundy, from different parts of Germany, and lastly from the Jura (five thousand vines,) were procured only to be rejected and cast aside. Mr. Longworth visited Washington, and there became acquainted with Major Adlum. From him he procured some slips of the Catawba, and the result, after many years, was a pure natural wine, of great body and flavor, delicate in aroma, and equally valuable as a still or a sparkling wine. The value of these wines can scarcely he estimated. The wine crop in the United States will soon be counted by millions of dollars. And not only are they important as a source of domestic wealth, but the evils of intemperance will never surely be eradicated until this is a vine-growing country. The wines made by Major Adlum were sweet and pleasant; a certain quantity of sugar was added to the must—an adulteration always injurious to any wine of real merit. Mr. Longworth corrected this mistake, and the Catawba wines are the pure fermented juice of the grape, totally free from any spirit or sugar. The fresh, natural, grapey taste is evident at once; they produce cheerfulness without intoxication, comforting the mind as well as the body, without depraving either the morals or the appetite. —*Cozzens' Wine Press.*

MULES.

The following statement of the history of mules in this country is from an exchange—we know not what; but we commend the subject to our Northern farmers, Our opinion of mules has been changed of late, and we believe that the substitution of mules, for oxen, or horses, in the ordinary work of a farm, would result in a great saving of expense. They endure great labor, and are kept at much less expense than horses.

"Few of the farmers of this country are aware what a debt of gratitude they owe George Washington for the introduction of mules into general farm purposes.

"Previous to 1783 there were but very few, and those of such an inferior order as to prejudice farmers against them, as unfit to compete with horses in work upon the road or farm. Consequently there were no good jacks, and no disposition to increase the stock; but Washington became convinced that the introduction of mules generally among Southern planters would prove to them a great blessing, as they are less liable to disease, and longer-lived, and work upon shorter feed, and are much less liable to be injured by careless servants than horses.

"As soon as it became known abroad that the illustrious Washington desired to stock his Mount Vernon estate with mules, the King of Spain sent him a jack and two jenies from the royal stables, and Lafayette sent another jack and jenies from the Island of Malta.

The first was of a gray color, sixteen hands high, heavily made, and of a sluggish nature.—He was named the Royal Gift. The other was called the Knight of Malta; he was about as high, but lighter made, black color, and lithe and fiery, even to ferocity.

"The two different sets of animals gave him the most favorable opportunity for making improvements by cross breeding, the result of which was a favorite jack which he called Compound, because he partook of the best points in both of the original jacks. The General bred his blooded mares to these jacks, even taking those from his family coach for that purpose, and produced such superb mules that the country was all agog to breed some of the same sort, and they soon became quite common. This was the origin of mules in the United States, now about sixty-five years since the first start, and no doubt there are now some of the third and fourth generations of the Knight of Malta and Royal Gift to be found in Virginia, and the great benefits arising from their introduction to the country are to be seen upon almost every cultivated acre in the Southern States. Notwithstanding the enormous increase of late years, arising from a systematic course of breeding in the Northern States for the Southern market, mules were never more valuable than at present, or more ready of sale at high prices."

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SETTING OUT TREES.

On the open of early spring, a large proportion of our readers are particularly interested in any plain, simple directions as to the best manner of setting out trees, and especially so, where in that way common and fatal errors are easily avoided. Let us therefore suggest:

1.—Do not set them too deep. This is the secret of the grand discovery of the great law of vegetation for which Russel Comstock asked the small sum of one hundred and fifty thousand dollars, viz:

"That the 'seat of life' in a tree or plant is just at the point where the earth should cease to cover the foot of the tree. If covered deeper, it strangled the tree at said seat of life, or forced it into sending forth suckers, which stifled all healthy progress in the tree."

Now the discovery is not a new one, that trees must not be too deeply planted; certainly no deeper than they were, when growing in the earth previously. Without doubt, thousands of dollars worth of trees are annually lost to our country by this simple error.

2.—Put nothing but pure and finely pulverized earth around the roots. Many persons are told their land wants manure, ashes, &c., and not having time to manure and ash their whole field, they, as a substitute, put these substances into the hole for the tree, and mingle it in the earth with which they cover the roots. This is all wrong. The soil may need manure and ashes, but these should be completely composted in the soil before allowed to come in contact with the fibrous root of the young trees.

3.—Mulch the tree well after setting out.—Mulching consists in placing the manure—be it new or old—leaves, tan-bark or whatever is used, loosely on the surface of the ground for a considerable space around the tree. On no account mix it with the soil in transplanting.

4.—The first step, and most important, in preparing for a fruit yard, is thoroughly to drain the soil. The tree cannot be healthy and vigorous without this.

5.—Take care of the tree after setting it out. Many persons do not bestow as much labor on a tree which ought in ten years to yield an income of ten dollars per annum, as they do on a half dozen hills of potatoes. They do not seem to be aware how great the difference is between the quantity and quality of the fruit on a kindly treated, well-fed tree, and that of one half starved and dwarfed. Let it be always remembered, that whatever is worth doing at all, is always worth doing well.—*The Agriculturist.*

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Farms Improved by Keeping Sheep.—Citizens of Wool growing districts, as parts of Washington and Fayette counties, are familiar with the rapid improvement of "Sheep farms," by sheep grazing alone. It is the belief of many whose opinions have been formed by observation and experience, that, by placing as large a flock of sheep on a poor farm as the land will sustain, and in five years, without any other means, it will be comparatively rich. Were this fact more generally known, it might change the husbandry of considerable portions of this State, the lands of which are better adapted to wool growing, than grain growing, to say nothing of remoteness from produce markets. The following quotations from the Transactions of the Norfolk Agricultural Society, which we find in the Wool Grower, are worthy of consideration:

"A man having a small farm, formerly kept forty sheep, four cows and one horse, and had food enough for them the year round. The price of wool falling, he sold his sheep, and for a number of years has kept other stock altogether. He now keeps but three cows and one horse the year round, and pastures two cows extra through the summer, sells very little hay—not half enough to keep another cow; he has the same amount of pasture and mowing land as when he kept the forty sheep in addition to his other stock, and yet his farm does not look near as well as then. He used to raise turnips among the corn for his sheep to eat in winter, and gave them besides, a few bushels of grain. The lambs, however, more than paid for his extra feed.

"Another farmer, for a great number of years, kept about sixty sheep, eight or nine cows, (or other stock equal,) one pair of oxen and one horse. After keeping the sheep for a number of years, he found he could then keep as large a stock on his farm with the sixty sheep, as he could keep without them before; showing that they had improved the farm to furnish their own support. To stock a farm entirely with sheep would not be so profitable as to keep a limited number—yet it would pay as well as other stock. The object is to keep enough to consume that part of the vegetation peculiarly fitted to sheep; and which other stock will not eat, adding, at the same time, enriching elements to the pastures and yards by their manure. It is the opinion of many farmers, that pastures for other stock may be improved by keeping a small flock of sheep upon them a portion of the time, and the opinion seems fairly supported both by reason and experiment."—*Penn. Farm Journal.*

NATIVE ORNAMENTAL TREES.

A tree is the grandest and most beautiful production of the earth, rocks and mountains being a part of the earth itself. A tree must be light and well balanced with an easy sweep of stem, to be beautiful. But little has been done in our country in the cultivation of ornamental trees, the rage seems rather to be their extermination. Much could be done at a trifling expense, and our residences and grounds would be much more pleasant, healthy, and greatly increased in value. I shall briefly notice such trees as are indigenous to our country, or such as can be easily procured.

First of all, the Oak claims our attention, and is one of the most picturesqe of our trees. The White Oak, the Red Oak with its changing hues in autumn, the Chestnut, or the Burr Oak, all stately and fine trees for shade or ornament.

The Ash of three varieties, the white, red and blue, all graceful and beautiful trees.

The Elm, the white and red, are well adapted for shade. The American Plane or Sycamore, the Poplar, three varieties.

The Walnut, Butternut, and all the varieties of the Hickory form picturesque trees. The Lime or Linden, with its airy lightness and sweet flowers, the most ornamental of trees. The Maples, both the Sugar and Red, are very beautiful especially when clad in their autumnal livery of varied colors. The Horse Chestnut or Buckeye, the Willow that dips its pendant boughs stooping as if to drink, the Black and Honey Locust, Wild Cherry, the Bonduc or Coffee Tree, Dogwood and Red Bud are all beautiful and picturesque; all of the above varieties and numerous species of shrubs are indigenous to our country, and if a few Pines and Cedars be added, they are all that will be required to render a place highly beautiful, they will render home more attractive, and will instruct our minds that Nature in the great Book of God, and in every page, is instruction to those who read.—*Hardin County Republican.*

COFFEE.—Asparagus is waxing potent enough to threaten a usurpation of breakfastdom. Hear what experimental philosophy pronounces on the coming revolution:

"Liebig (the illustrious German chemist) says that asparagus contains, in common with tea and coffee, a principle which he calls "taurine," and which he considers essential to the health of those who do not take strong exercise. Taking the hint from Baron Liebig, a writer in the London Gardener's Chronicle, was led to test asparagus as a substitute for coffee. He says: The young shoots I first prepared were not agreeable, having an alkaline taste. I then tried the ripe seeds. These roasted and ground make a full flavored coffee, not easily distinguished from fine Mocha. The seeds are easily freed from the berries by drying them in a cool oven, and then rubbing them on a sieve. In good soil asparagus yields seeds abundantly; and if they are charged with "taurine," and identical with seeds of the coffee plant, asparagus coffee may be grown in the United States at less than half the cost per pound of the article now so largely imported."

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Use of Pond Mud.—We have before given the method for the preparation of pond mud to render it immediately useful as manure. The residuum from canals is often very valuable from the fact that each length of canal between locks acts as a cistern for the deposit of sediment, which, under ordinary circumstances in rivers would be carried to their mouths, and this sediment, therefore, is apt to contain a large amount of decomposing vegetable material in different stages of decomposition. The composting with the salt and lime mixture will prepare such deposit for immediate use, and render it of high value as manure.—Ed.

Some three or four years ago, as an experiment, we drew out of the bottom of a pond filled during the season with back-water from the canal, but dry in spring, about fifty loads of mud, which was applied immediately to the land. For the first and second years it seemed to prove a decided injury, but after being turned up with the plow, and subjected to the action of frost for one winter, the beneficial effects began to manifest themselves, and the best of our barn-yard manures have not produced so heavy a growth of grain, and the effect promises to be permanent. Probably a better way would have been to have piled it up for one year, or composted with other manure, or with lime.

(*Farmer's Magazine.*) R. MERCHANT.

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THE SCIENCE OF BLACKSMITHING.

The *Scientific American* says—Sawing heated iron and steel, is not known or thought of by blacksmiths; and when several forks or branches are to be formed from one stock, even if the branches are required to remain eventually nearly in contact, and parallel to each other, the usual method is to split the end of the iron with an awkward chisel; thereby deforming the edge of each branch; on which account, the branches must be bent asunder for the purpose of hammering, squaring and shaping the edge of each; after which they are brought together as well as may be, usually retaining a roughness in form, if not a deficiency of size and strength near the juncture of the branches. Instead of this tedious process, the iron when heated may be put into a vice, and the ends may be readily slit with a suitable saw, which would save much labor in hammering and filing.—A saw for this purpose should be made thicker at the edge than at the back, and with uniform teeth one twelfth of an inch apart. The saw when used, must be often dipped in water, to prevent its becoming too much heated. There is also a method of saging or cutting hardened steel, which is not generally known as it should be. A circular piece of common thin iron plate, or sheet iron, being adjusted to a lathe, or by other means put into a violent rotary motion, will readily cut off a file, a cutting tool, or tempered steel spring, without drawing or reducing the temper. There is much symmetry in the wonderful effect of this buz, and its cutting property is attributed to electricity. It answers a very convenient purpose, however, when the shape and form of articles are required to be altered without affecting their temper. It furnishes a convenient method for cutting teeth to large saws; but objectionable on account of the newly cut surface being left so hard that they cannot be readily filed by a common file. Connected with the subject of 'mysterious effects,' it may be stated that a bar of iron of almost any size, may be instantly sundered while hot, by the simple application of a piece of common roll brimstone. A knowledge of this fact will be useful, when some piece of iron work is required to be severed, but which, as is sometimes the case, is so constructed and situated that no ordinary chisel or cutting tool can be brought to apply. Holes may be instantly perforated through bars or plates of heated iron, by the application of pointed pieces of brimstone. This phenomenon is curious, although it seldom affords much practical utility.

Getting rid of Caterpillars.—We have standing in our back yard, says the editor of the Thomasville Watchman, a beautiful mulberry tree, the leaves of which, some three weeks since, were being entirely eaten up by caterpillars.—Being informed of a process to get rid of them, we tried it, and are happy to announce the success of the experiment. With a common sized gimblet, we bored a hole into the body of the tree, some two inches deep, perhaps, which we filled with sulphur, and then plugged up the hole. In a short time, say forty-eight hours, they were seen crawling about the yard, and in less than six days not one was to be found remaining on the tree. Young leaves are now putting forth from the limbs which they had stripped. This is a simple, and we believe a sure way, of getting clear of these pests, and many valuable fruit trees might be preserved by following it.

The following table will be found very valuable to many of our readers :

A box 24 inches by 16 inches square, and 28 inches deep, will contain a barrel, (5 bushels.)

A box 24 inches square, and 14 inches deep, will contain half a barrel.

A box 26 inches by 15.2 inches square, and 8 inches deep, will contain one bushel.

A box 12 inches by 11.2 inches square, and 8 inches deep, will contain half a bushel.

A box 8 inches by 8.4 inches square, and 8 inches deep, will contain one peck.

A box 8 inches by 8 inches square, and 4.2 inches deep, will contain one gallon.

A box 7 inches by 8 inches square, and 4.8 inches deep, will contain a half gallon.

A box 4 inches by 4 inches square, and 4.1 inches deep, will contain one quart.

"Courting" in the country (says an exchange) is altogether a different institution from the city article.

In the former place you get rosy lips, sweet cider, and johnny cakes, and girls made by nature ; and, in the latter, a collection of starched phrases, formal manners, fine silk, gilt jewelry, and girls got up *secundum artem*. Always take to the rural districts when you want to get a good style of "calico."

Summer Feed for Milch Cows.—Our pastures fail us most in July and August, for then we commonly have dry weather and the grass in pastures comes to a stand. Cows often fall off one-half in their yield of milk, and something is wanted to keep a flow till the fall feed is ready for them. For when their udders have become much contracted by short feed, it is not so easy a matter to enlarge them by a great supply in autumn.

Oats and turnips and various other vegetables have been recommended to supply the natural deficiency of autumn. But in our climate there is nothing equal to Indian corn. Till within a few years there was but little use made of the blades for summer feeding. But its virtues are becoming better known, and the practice of sowing in drills for this purpose is fast extending.

We recommend to all who would keep more cows in summer than their summer pastures will feed well, to have a patch of corn nigh by, planted for the purpose of supplying the deficient pastures. The labor of cutting and feeding is not great where only a wall separates the corn from the pastures. The blades may be readily thrown over the fence, and the cattle will not waste a pound in a hundred that may be thrown on to a grass plant. The cows should have their rations in the morning, and at no other time, then they will not be diverted from their accustomed range in search of a variety in low grounds, &c.

We have heard it solemnly asserted by more than one farmer, that the practice of feeding cows with stalks in the pasture was not to be countenanced, because the stalks only served to divert the attention of the cattle and keep them from their natural food ; that the corn took away the appetite for grass and bushes, &c.—But this is remedied by feeding only at a certain time in the day, and giving a good supply.

Valuable Discovery.—A very superior article of Spanish Brown has been lately found near Elyton, Ala., which has been tested by competent persons, and pronounced to be better than the imported article. The quantity is said to be inexhaustible, as "there is a whole mountain of it."

Cabbage Worms.—John Farrar, one of the most practical farmers in the State, says these destructive insects may be destroyed in the following easy and simple way:

"Break off a large leaf from the bottom of the cabbage, and place on the top upper side down. Do this in the evening and in the morning you will find near or quite all the worms on each cabbage have taken up their quarters on this leaf. Take off the leaf and kill them, or feed them to the chickens, and place the leaf back if there be any more to catch."

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To Farmers.—The Hartford Times, mentions a farmer who took up a fence after it had been standing fourteen years, and found some of the posts nearly sound and others rotted off at the bottom. Looking for the cause, he discovered that the posts which had been inverted from the way they grew, were solid, and those which had been set as they grew were rotted off. This is certainly an incident worthy of being noted by our farmers.

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Planting for Posterity.—"There," said a gentleman to us one day, pointing to a group of Evergreens and other trees, "my brother is about to build him a house; those trees were planted for him by my father upward of twenty years ago." How fortunate this man to have such a father. Here he builds his house among these fine trees, and enters at once upon their enjoyment. He gains twenty-five years of time, and not only that, the plantation has a ten-fold value in its history and associations. It is a family monument. A beautiful example this for fathers. Such an inheritance has a moral as well as material value.—*Horticulturist.*

The Liver Pills.—The Liver Pills of Dr. M'Lane were first used by him exclusively in his own practice. So efficacious were they in all cases of Liver Complaint, that they became famous, and attracting the attention of the medical faculty, passed into general use. They act with great certainty and regularity; the patient almost immediately feels the dispersion of his disease, and is gradually restored to health. With some the effect is almost miraculous, frequently experiencing immediate relief, after having for months resorted to drugs and medicines of another description, in vain. Diseases of the Liver are very common in this country, and are often frightful in character. Those who experience any of the premonitory symptoms of this dangerous and complicated disease, should at once procure a box of Dr. M'Lane's Pills, and perhaps, thereby, be saved a world of misery.

☞ Purchasers will be careful to ask for Dr. M'Lane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills, also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by P. F. PESCUD, Raleigh.

◆

Worms,—As this is the season of the year when worms are most formidable among children, the proprietors of M'Lane's Vermifuge beg leave to call the attention of parents to its virtues for the expelling of these annoying, and often fatal enemies of children. It was invented by a physician of great experience in Virginia, who, after having used it for several years in his own practice, and found its success so universal, was induced at last to offer it to the public as a cheap, but certain and excellent medicine. It has since become justly popular throughout the United States, as the most efficient Vermifuge ever known, and the demand has been steadily on the increase since its first introduction to the public.

☞ Purchasers will be careful to ask for Dr. M'Lane's Celebrated Vermifuge, and take none else. All other Vermifuges, in comparison are worthless. Dr. M'Lane's genuine Vermifuge, also his celebrated Liver Pills, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by P. F. PESCUD, Raleigh.

NEW COTTON GIN!!!

Superior to any now in use.

The inventor of the new Cotton Gin, known as "S. R. Parkhurst's Patent Cylinder Gin," after having spent three years, and a vast amount of money has succeeded in perfecting the Gin, so that it can now be offered to the public, with full confidence in its superiority over every machine for cleaning cotton from the seed.

The great value of this machine consists in this; that it leaves the cotton open and free, does not cut or break the staple, but rolls it off the seed in its natural state *making* the lint with from *one to two cents per pound* more for the manufacturer, *by actually bringing* that advance in market The machine will not saw or cut the hand of the operator, and will not catch a stalk, stone, nail, or any hard substance, but throw them out with the seed. The company who own the right for making and selling this Gin for the State of North Carolina, are now manufacturing a large number and are prepared to fill all orders, giving a full guarantee the Gin *will do good service, both in quantity* and quality.

The Gins will be delivered at the Depot nearest the purchaser, and will be set up between this and the next ginning season, *to be paid for when tested, provided they give satisfaction.*

Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

NORTH CAROLINA INSTITUTION FOR THE *Deaf and Dumb and the Blind.*—The Sessions of this Institution will hereafter commence on the First day of September of each year, and continue ten months.

This change has been made in order to bring the vacations into the months of July and August, which, on account of the heat of that season, are less adapted to study than the other months. It also brings the Commencement of the School to the season when the Sheriffs of the different counties are coming in to make their returns, thus affording a good opportunity for parents to send their children.

The following are the Officers in the Intellectual Department of this Institution.

WM D. COOKE, M. A., PRINCIPAL.

J. A. WADDELL, M. D.,
REV. H. HARDIE,
GEO. E. KETCHAM,
CHARLES M. GROW.
} Professors and Teachers.

☞ Applications for admission should be made to the Principal.

Raleigh, August 14, 1854 tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

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VOL. 3. RALEIGH, N. C., OCTOBER, 1854. NO. 7.

JOHN F. TOMPKINS, M. D., Editor. Wm. D. COOKE & Co., Proprietors.

Miscellaneous.

For the Farmer's Journal.

THREE DAYS IN EDGECOMBE.

BY EDMUND RUFFIN.

From rumor and uncertain and loose verbal reports, I had learned that agricultural improvement had been making great and remarkable progress in Edgecombe county. What I knew generally of the character of the soils of the pine region, and of the great agent for their improvement, marl, elsewhere, and which was reported to have been the prime fertilizer in Edgecombe, made me desirous of visiting that county, and becoming personally acquainted with some of the best improved farms and their proprietors. This wish was made the stronger, but the accomplishment not at all forwarded, by my having received from the Agricultural Society of that county, some eighteen months ago, an invitation to deliver an address at its then next annual meeting. While highly appreciating that compliment, I was under the necessity of declining the honorable service required. My engagements then forbade my undertaking the task. And even if free to act, I have never esteemed as of much value the instruction and benefit to be conveyed in formal addresses to Agricultural Societies. The occasion, and the mixed assemblage, both would render it improper to treat, for instruction, of matters of farming practice. Hence, the speaker on such occasions is almost compelled to fall into the far more easy and customary way, of uttering a mere declamation on agriculture, which in most cases is such as may be truly termed "an essay on agricultural things in general, and of nothing in particular," and is of no practical use whatever.—It is not so much the fault of the writers or speakers of such addresses, as it is of the occasion, that such formal addresses serve to instruct in agricultural knowledge, as little as do Fourth of July speeches in statesmanship, or in the science of government.

It was but very recently, (in August, 1854,) that circumstances permitted my visiting Edgecombe—when returning to Virginia, from a visit to the upper part of North Carolina. After forming the intention, there was but a few days' time to notify John S. Dancy, Esq. of my coming. With this gentleman only, I had had some correspondence, as the former president of the Edgecombe Agricultural Society. I had never seen any resident, and seen no more of the county, than was afforded by the passage on the Wilmington railroad through its borders, and which is generally along a ridge of its poorer land.

When reaching the Rocky Mount station, I had counted on taking the mail-coach to Tarborough; but I found Mr. Dancy and his carriage awaiting my arrival. This I should have regretted, if merely providing for my personal accomodation. But the private conveyance permitted the travelling a different route, and the passage through, and view of a number of the best farms in the county. We crossed Tar river by Rocky Mount, at the picturesque falls of the river, made, as are the most eastern falls of all our Atlantic rivers, by the ridge of granite which passes across the courses of all that enter the ocean. Our road passed not very far from the river, and again crossed it below. The lands, like nearly all in the county, are as nearly level as land can be. The original growth, more or less of pine, indicates soil of but moderate natural fertility, and of acid constitution. Still, these lands near the river, as usual in regard to all rivers, were much better than the more remote lands. We stopped to see a large marl excavation, near the road, and also saw evidences of the other usual and more peculiar operations for the improvement of lands. But it is unnecessary to speak of them in advance of the better views of more full operations afterwards had elsewhere.

We reached the beautiful village of Tarborough late in the afternoon. The next morning we set out, on horseback, first to view Panola, the farm owned and cultivated jointly, by Messrs. Robert Norfleet and John S. Dancy. It was purchased but a few years ago, (at $15 the acre,) and is now under the third year's crop made by the present proprietors. It was before greatly wanting in buildings as well as all other improvements; and the full cropping of the farm has not been attained before this year. The growth of the crop of Panola, was such as might be expected from a high degree of recent fertilization, and judicious culture. But I shall have but little to say on that head, important as it is, either of this or other well improved farms that I viewed in the like hasty and cursory manner. All the crops were good, and of remarkable uniformity of growth, for such large spaces and different farms. On the original pine lands, (as nearly all were, except swamps and very low river bottoms,) the different rates of production of different farms seemed to be greater or less, in proportion to the length of time which had previously been given to the peculiar and continual manuring of this county.

The dwelling houses for the negroes on Panola have all been recently erected by the present proprietors, on a regular and uniform plan.—From their outside appearance, they seemed of superior order to any I have seen elsewhere, and each family more comfortably lodged, than any known mere agricultural laborers, whether slave or free. The farm buildings were also new, and well arranged for their purposes.

The stock yards were large, permanent, and well enclosed, with straight plank or sawed fences. Here we saw one end of the work then carried on by the whole force of the farm. Twelve small carts, each drawn by one mule, were bringing and emptying ditch-bank earth over the whole surface of these stock yards. The cow-yard, in which the cattle were penned through summer without litter, and through winter with litter, was to receive a layer of above six inches depth of this earth. The adjoining hog lot, in which the hogs for slaughter would be fattened, would have twelve inches or more.

The length of the hauling, from the ditch-bank to the lots, seemed to be between 300 and 400 yards, or double this distance for each trip. The whole of the bedding of earth, with the other ingredients of the general mass, will be next spring thrown into low ridges on heaps, for intermixture and better preparation, and afterwards be carted to the fields.

The earth was the old bank formerly thrown out of a large open ditch dug through a long low depression, and which served to drain the adjacent ground. The upper part of most of the earth thrown out was mostly of rich swamp soil. But parts even of the upper layers were comparatively poor and sandy. And the bottom layer, or subsoil, before dug out was throughout a sandy clay, which hardened into clods when dug, and which seemed quite poor. To this last layer, and mineral or compost the men were then adding a deepening of six or eight inches, which will be used in the like manner hereafter.

If not before informed of the general and great beneficial effects of such compost, I should have doubted whether even the richest of this earth, as material, would have failed for the long and double transportation, and several haulings.—And as to the (apparently poorest earth thus used, I would not have wished it placed on my land, if to be done without any cost to myself. Indeed, if, without any previous information of either the persons so operating, or of the effects of such labors, I had first seen this precise operation in progress, I would have inferred that the proprietor was on the road to ruin, instead of to high improvement of his estate and its income. But I will never oppose any mere opinion, founded in advance of all knowledge of facts, to the contrary deductions from facts well ascertained and tested by sufficient time and experience. And therefore, whatever imperfections and errors, and even partial laws as consequences, may present partial exceptions to and errors in the general practice of compost manuring in Edgecombe, I am bound to admit, and fully believe, that the practice in general has been highly improving, beneficial, and profitable. But for the present, I will suspend this subject, and renew it after reaching the conclusion of my information and observation of the operation.

We had to hasten from Panola to be in time to reach Cotton Valley, the farm of Baker Staton, Esq., who, in the estimation of his countymen, stands highest in the rank of the improving and profit-making cultivators and good farmers of Edgecombe. It is a good custom of this county, that after the crops are all "laid-by," or their cultivation is ended, a barbacue is prepared on some one's farm in each neighborhood, and to which are invited all the neighboring farmers. By lucky accident, and without ever having had any previous notice thereof, one of these social meetings was to take place on this day, under the shelter of the host's extensive cotton loft. Notwithstanding a cloudy and threatening morning, which was followed by a heavy rain while we were at dinner, there were assembled about 60 of the neighboring farmers and residents of all degrees. For such an entertainment, which in our country, and according to our social usages, must be open to nearly all who choose to come, the persons present indicated a population of high order, in regard to intelligence, and good deportment. Of all whom I heard converse on farming, (and there was no other subject of conversation,) there was no one who did not speak to good purpose. The only fault I observed was that there were too many who said nothing, and who seemed too diffident, and modest, to act otherwise than as attentive listeners.

The speedy return of fair weather enabled a large party of us to ride with our host along the roads and paths that passed through his extensive and magnificent crops of cotton and corn—and in some parts of our route, through crops without paths, though at the expense of considerable wetting from the rain-water still remaining on the cotton leaves. A small part of the low land is a true peat earth, which is so entirely of vegetable constitution, that, though well drained, and cultivated, it is incapable of sustaining the growth of corn—or of bearing the weight of horses. This, I should infer, would furnish the best large material for Mr. Staton's compost heaps. But as yet he has only used for that purpose the banks of his numerous ditches—and of the peat, only so far as the ditch banks were of that earth. When all the ditch banks shall have been thus used, he will use the peat, to such extent as it is of convenient distance to the fields. The quantity will exceed any probable demand for making compost, for many years.

We returned to the village early—but not to be alone. My host had placed me in his office, on the street, to which, his farming friends of the neighborhood, and my new acquaintances, had convenient access at all times. And rarely, from breakfast time, to late bed-time, when within doors, were we without some agreeable visitors. Indeed, during my whole stay, whether when within doors, or on the road, or when riding over and viewing farms, it may be said that there was a Committee of Agriculture *in permanent session*, (or in locomotion,) though often varying both in numbers and in members.

On the second morning, according to the previous invitation and arrangement of Robert R. Bridgers, Esq. about a dozen farmers started after early breakfast, for his farm of Strabane, on Fishing Creek, 9 miles from Tarborough. The ordinary good high land of the county was here, as at Cotton Valley, substituted in part by lower and rich swamp land, formerly heavily wooded, but now cleared, well drained, and under a heavy growth of cotton.

In the afternoon, I rode with Messrs. Dancy and R. Norfleet, to see the farm of Hope Lodge. This farm also is but a recent purchase of Messrs. Dancy and William Norfleet, and the improvement made by them is of still later date and less advancement, though in as good apparent progress as in other cases. The land is in four distinct and level terraces, each separated from the one next above by a short slope. The highest of these slopes was the only one that I saw on any farm that could be termed a hill-side; and this one, though of slight elevation was protected from being washed by a graduated trench running along the top. The lowest of the four terraces, is bordering on the Tar river, (in a level of which the farm lies.) and is narrow, and too low, and too much subject to being overflowed by high freshets, for cultivation. It is not however useless. Its wood, both drift, and standing and dead, furnishes a valuable supply of ashes for compost—and a still more abundant and also a valuable material, in the "brown deposit" of mud and mixed leaves and other vegetable matter, left in the eddies of the floods. This latter is deemed the richest earth for the compost heaps. This earth, in one layer, and over it pure marl some inches thick, made the flooring of a pen in which the cattle were confined every night through summer. No doubt the animal excrements were best secured from waste by the contact and chemical combination with the carbonate of lime of the marl.

In the course of this day, I had visited and seen the manner of working of four different marl diggings—two on Strabane, one on Mr. John L. Bridgers' farm, (where we found 15 carts at work,) and one on Hope Lodge. There were important defects in the manner of working of all—which I pointed out, as well as the proper remedies or substitutions; and which advice may save a large portion of the expenses of future excavation and hauling. More will be said on this head, when speaking on the marling of Edgecombe more fully.

This evening we spent at the house of John L. Bridgers, Esq., in Tarborough, with some six or seven other farmers. After a late sitting, and next morning an early rising and breakfast, I returned to Rocky Mount, by a different road, to take the railroad cars for Weldon.

I will now proceed to bring together, in a more regular digest, such observations as I could make, and the information obtained, during my short visit. The statements will be necessarily meagre and imperfect, and perhaps in some cases may be erroneous, owing to misconception, or failure of means. For any such mistakes, I trust that the circumstances will serve as a sufficient excuse.

Edgecombe county, or as much of it as I saw, in its surface is almost a level, unbroken by any deep depression except the Tar river, and its considerable tributaries. There are, on almost every farm, slight depressions, usually very narrow and long, of swampy character naturally, and which serve a most useful purpose, as proper routes for open drains, and out of these ditches to furnish material of earth for compost heaps. In many cases, these slight depressions of level spread out into extensive swamps—as on Cotton Valley and Strabane—which when cleared of their gigantic forest growth, and drained, make very rich and productive land.—The clearing is very laborious, though the labor is lessened and divided, by belting, and so "deading" the large trees. The ditching also cut, through unmatted roots and among standing trees, is laborious, but durable and effectual for drainage. The soil is deep, but rarely peaty, and of such good earthy constitution, and on such sound subsoil as to be of great and permanent productiveness, under proper tillage and treatment.

The higher land is firm and mostly dry, naturally. Most of it is of some one or other intermediate grade between sandy soil and medium loam. Very little is too sandy to be of excellent texture for cotton, corn and peas—and not much, (though there is some land,) quite close and stiff enough for wheat and clover. As the culture of the latter two crops is attempted on very few farms, and to but small extent, it may be considered that the land generally is of the best possible texture for all the great crops, best and well suited to the climate, which in the order of their usual extent of culture, are in the order named above, of first cotton, next corn, and least peas.

The soil (exclusive of swamps) is pine-bearing and acid, and therefore especially requiring, and profited by, applications of lime. Marl very extensively underlies the land, and has been found and is used as manure on many farms.—It has been eminently beneficial, whenever properly used—and where known early, was the foundation of all other improvements since introduced. The commencement of improvement, as reported, was to me especially interesting.—

Until some 15 years ago, the agriculture of Edgecombe was, like most other of the more southern counties, in a very low condition. It was not then far from the truth, as to Edgecombe, as is even now erroneously supposed of it by many strangers, that its chief productions were turpentine and ague and fever. As was generally the case formerly, in lower Virginia, as well as still later in lower North Carolina, no one attempted the durable enriching of his land, and not many thought of taking the least care to avoid complete exhaustion at some future time. At that time, four farmers in the county were subscribers to and readers of the Farmers' Register, and from its contents they learned the value of marling. Three of them had marl, and began its use. These were, James S. Battle, (recently deceased,) Exum Lewis, and Dr. Dicken. Their success induced others to follow their example. Soon other materials were tried. One farmer began to make composts of earth and marl, and stable manures; another added ashes—a third cotton-seed—and others added other and smaller materials, such as salt, gypsum and guano, but in few cases, and to limited extent.

But whoever may be the just claimants of minor parts of the now general system of compost manuring, it is admitted that Baker Staton, Esq., now of Cotton Valley, first practiced it extensively, and became an examplar to his countymen in that mode of improvement, as he is understood and reported to be in general good management and good cultivation. His successful and admirable results, in the use of compost manure, in my opinion, were necessarily and greatly forwarded by his having first (or very early in his course) marled all his land, and mostly in advance of his compost applications. It is to be lamented that this course has not been general among those having accessible.—Correct views of the action of marl on putrescent manures would have caused this practice of previous marling (or liming) to be deemed essential. But the loss of value caused by the omission of previous marling is mostly concealed by the applications of compost being annually repeated—so that the degree of durability of each separate dressing cannot be known.

And the subsequent application of organic matter (supplied in the composts,) was still more visibly operative, in making the previous marling the most highly beneficial. Before the improving system was begun in Edgecombe, the practice (as then and now too generally in South Carolina) was to take crops almost every year from each field, and to return less in manure than was abstracted from the land by the crops. Of course, the culture was regularly exhausting, and most of the cultivated lands had been thus made poor, and were yearly becoming poorer. Under such circumstances, (as I have urged elsewhere,) calcareous manure can have very little effect. Mr. J. S. Battle, named above as one of the pioneers in marling, and who at a later time became one of the most successful operators, often having applied marl for some four years, actually suspended the further use, under the belief that he had not been paid for his labor. Then he commenced the composting practice; and wherever his compost happened to be laid on ground formerly marled, (as stated to me by his son, Wm. S. Battle, Esq.,) "the compost acted like a charm," and gave sufficient encouragement for his resuming and continuing the use of marl, as he did, with zealous perseverence and success.

I will now state generally, and in the cursory manner which only is permissable in a hasty sketch like this, the ordinary practices in making compost manure, of which the main features are now general in Edgecombe, and which, to more or less extent, is in use on almost every farm.

The ditches on every farm, in their original banks, and the earth taken out in subsequent clearings and deepenings, furnish the main supply of material, and which is nowhere yet exhausted. Much of this is of swamp or other rich soil. But some, from greater admixtures of sand, of even poor upper soil, and very often of comparatively poor subsoil, is much poorer—and as it seemed to me, too poor to be worth removal for manure. Still, all such is used for compost. Besides, the nearest wood-land (even if of poor soil,) is often skinned of its upper surface—and all the upper earth in the fence corners is scraped up and removed, repeatedly—and there are additions to the more abundant earthy materials for compost. A large portion of all such earthy material, as before stated for Panola, is used to bed cattle and other live stock, in summer pens, and make the foundation and a large ingredient of the general mass, with vegetable litter, in the winter pens. In the latter part of winter, the whole mass then in the stock pens, is thrown up in low ridges, for better admixture and ripening, and then hauled out, to be applied, in the drill, for cotton, is the universal practice. Where marl is available, that makes a large part of the earthy foundation.—It would be much better if marl formed the larger or only supply of bedding for the pens in summer, when highly putrescent matters are so liable to decomposition, and the total waste of the greater and richer part of their substance.

As soon as the crops are laid by, in July and early in August usually, the making of manure, and collection of materials, begins. On all the arable ground not then under a crop, (which indeed is very little on most farms in summer,) the earth is carted to a pile in the centre of every acre, 100 single mule cart loads of earth to each, or about 500 bushels. To each pile is added 30 bushels of cotton-seed—and the earth and cotton-seed often are all. But either in addition to, or without cotton seed, the stable manure, as fast as it is produced, is given—and all the materials are thrown into a heap, and as well intermixed as may be. Marl, where to be had, is also added, and ashes. On Panola, last year, in the compost heap on each acre, besides the 100 loads of ditch-bank earth, or of the "brown deposit" of the river freshets, there was 40 bushels of marl, 10 bushels of ashes, 30 of cotton seed, and 1 bushel of both gypsum and salt.—But the two latter ingredients are rarely used elsewhere.

In the spring, the compost heaps already in the fields, (and mostly made through the past winter,) and also the compost manure ridged up in the stock pens, are carted and laid in the drills, the land having been previously ploughed. The manure is quickly covered by the plough; and the planting of the several crops, in their proper order, soon follows.

Ashes are not only saved from the ordinary sources of supply of every farm, but from other sources, and with peculiar economy and care.—It has been ascertained that rapid burning and large fires consume and destroy (or rather it should be said, drive off into the air,) a large proportion of the ashes which wood yields.—This waste is very great in the burning and draught of ordinary fire-places, and much greater in the customary large log-heaps and violent fires of cleared wood-land. Hence, for the wood of new clearings, and of drift wood departed by the freshets of the river, small fires and slow burning are used. The quantities of ashes thus obtained are very great. Messrs. Norfleet, and Dancy, pay to their negroes 8 cents per bushel for all the ashes they will furnish; and they make a considerable supply from the numerous dead trees in the woods, and scattered drift logs. The larger collections of drift wood are burnt by the proprietors.

All these materials, and every other putrescent matter that accident may offer, are used in compost, or intermixture. And the general benefits are such, that the belief has become very extensive that intermixture alone, of any two or more different materials, serves to create new and important manuring value. The received reports of the general results of the practice, as shown in the large and increasing crops, and increased fertility of the lands so treated, are such as to permit no doubt to be entertained of there being great benefit and profit in the general. But still I would question the propriety of using, and of twice moving, and more than twice hauling the poorer of the earthy material used as well as the economy and profit of some of the attendant labors. Of this, more hereafter.

With such industry to procure materials, and with the unlimited supplies of the larger and poorer kinds, the amount of compost manure to be made is limited only by the labor that can be so directed. And the quantities actually made are enormous. Every careful farmer thus manures his whole cotton field, and more or less of land under crops. Of the Panola farm, having 600 acres of cleared land in all, compost was applied last spring to 350 acres now under culture, and guano to 50 acres more, 400 in all manured. The land now (or lately) under crops, is 220 in cotton, 225 in corn, 8 of sweet potatoes, 37 of oats, and 100 of broad-cast peas as a manuring crop; in all 590 acres under crops. The products of this farm for the only two years completed under the present owners, with a safe estimate for the growing crops, would exhibit to those persons knowing the circumstances, great progress of improvement. But to others, the mere statement of increase, without explanations, would be delusive, as the necessities of the farm at first required labor to be withheld from cropping; and the first two years' crops were therefore on much smaller spaces, as well as on unimproved and much poorer land. Even as to other cases of older and long continued culture and increase of crops, which I will cite to show some of the greatest improvement and profit, all are liable to the objection of there having been more space added by new clearings, and also increase of laborers. This obstacle to accurate statements of increase must necessarily apply to all improving farmers, of a country as yet but partially opened for culture.

Mr. Baker Staton has increased his cotton crops from 60 bales to 302, (400 lbs. are counted to the bale.)

Mr James S. Battle when beginning to marl owned and cultivated four separate farms in Edgecombe, on all of which he made at most 275 bales of cotton. Subsequently, he gave two of the farms to two sons—and on the other two farms only, subsequently increased his crops to 600 bales. On the other two farms, his sons have respectively made about 185 and 195 bales, or nearly 1000 bales from the 3 proprietors.—From the 600 bales made lately by the father, there should be deducted 50; which was the previous product of another farm which he had lately bought. The subsequent increase on that new purchase fairly belongs to Mr. Battle's general increase, from his own improvement of land.

Mr. Robert R. Bridgers and Mr. J. L. Horn, besides having respectively the ordinary incentives to increase their crops, have for some years been engaged in a friendly but ardent contest with each other for superiority. Their crops of cotton for the last seven years will be here stated in connection.

	R. R. Bridgers.	J. L. Horn.
1847,	19 bales.	[illegible]7 bales.
1848,	33 "	43 "
1849,	53 "	54 "
1850,	88 "	83 "
1851,	136 "	137 "
1852,	185 "	165 "
1853,	170 "	182 "

Mr. Horn's farm is on Town Creek, where there is no marl, and where ashes are largely used instead. His whole farm consists of but 317 acres. Half of his arable land, would not have yielded to him at first more than 10 bushels of corn to the acre.

Mr. Robert R. Bridgers stated that he knew that the farming of Mr. Mercer, on Town Creek, yielded better returns than his own. But, different from most others, Mr. Mercer raised not only cotton for sale, but also corn and pork; so that a like statement of his cotton crop, if reported, would not [illegible] justice to his improvements and profits, in comparison with others, with whom cotton is the principal crop, and the only sale crop.

There are many others who in the last 10 or 12 years have, by compost manures, doubled their crops—fewer have tripled theirs, and still fewer, including the above named, have increased their fourfold.

If we had heard for the first time of these most usual practices, in advance of their ascertained effects, there are few who would not utterly disbelieve in the great benefit of using such poor materials, and in any nett profit from the whole laborious composting and application, to be repeated almost every crop, and the manuring and the cropping repeated every year. And if one, or a few famers only had even had some year or two of experience, and reported the beneficial results, their favorable opinions would be ascribed to their sanguine temperament, mistake, or errors of judgment. But when so many farmers, of all and various conditions, have concurred for ten years or more in the same general procedure, and in so doing, have stopped the former general progress of impoverishment, and have produced great improvement of lands, and increase of crops and of profits, there remains no ground for a doubt as to the general beneficial results, and great profits, of the general procedure for such improvement. And their increased products and profits have been made, on lands cropped almost every year, (an omission is very rare,) and without any thing like a rotation of crops. Cotton occupies the same ground almost continually, and always for at least four or five years in close succession.

But in addition to these considerations, I have seen other and like facts of composting elsewhere, which were alleged to produce a great benefit, and were sustained by as ample and similar evidence. In Talbot county, Maryland, a few years ago, I saw in operation nearly the same system of making compost manures, and heard the like reports of general benefits thence derived. The practices varied only in the different supplies of material. In Talbot, besides ditch banks, head-lands, or margins of fields, and other rich high-land soil, tide-marsh mud, was accessible, was largely used for the chief material of compost heaps. Also refuse or very low-priced fish, when to be obtained in quantities, sometimes made part of the richer parts of the bed or heap. Not only did intelligent proprietors so operate and improve on their own lands, but poor men who were but tenants at will —who paid rents that with us would be deemed much too high, (one-half of the wheat, and one-third of all other products of the rented farms,) and who yet had been growing richer in a long course of such business. As in Edgecombe, so in Talbot county, the practice was so extended, had so long continued, and the effects were so well known and established in general opinion, that there was no room to doubt the ordinary and great benefits, even though there might have been many errors in the details, and many losses in particular, and wrong parts of the generally good system.

Thus, in two remotely separated communities, having not the least communication with or knowledge of each other, there have separately sprung up systems of manuring of almost precisely alike.

My commendation of the general system of compost manuring in Edgecombe, and testimony of its benefits in improving both crops and land, have been sufficiently stated. I can also testify (though such might be inferred as incidents to all great and general improvement of lands,) that the farmers are intelligent in pursuing their plans—zealous and industrious in their labors—and managing well in the peculiar system they aim to pursue. I will now take the liberty of noting some things in which I think they err, either in acts of commission or omission.

1st. In their compost system, I think they err in using much earth as material which is too poor to pay for two transportations and more handlings. Enough of rich earth might be found and used instead, on almost every farm—or still better, marl for the flooring of stock pens.

2. A still earlier and more general error, is to omit the general and light marling (or liming) of all the fields in advance of the compost applications, or as early as possible. I say a *light* marling, became the marl making part of the compost would at every application serve to add to the quantity of marl, until the soil had been

made sufficiently calcareous. If this most valuable material is not to be obtained on or near to every farm, marl nearly as rich as pure lime, from the more southern counties, might be brought by the railroad—or lime boated up the Tar river. At some times even the lime from Maine has been thus obtained as low as $1 the cask. Mr. D. Bullock once bought 1000 casks of lime at that price, and used it as material for compost.

3. There is much loss of labor in the manner of carting the materials and carrying out and applying the compost manure. The carts are all small, drawn by one mule, and have the ordinary narrow wheels. The carting of materials in summer is mostly limited to the time between the laying by the crops, and the beginning to gather fodder. None of this time can be lost; and if much rain occurs the ground is made soft, and the hauling heavy. Further—when carting out the manure in the spring, to be put in the opened drills, the field has then been ploughed, and of course the hauling is laborious. Hence, the ordinary loads of earth, or of compost, are estimated at only five bushels, to the one mule cart. Now, on dry or firm ground, and on so level a surface, a mule can easily haul eight bushels of moist marl or earth—and a two mule cart, 18 bushels, as I have fully tested in my extreme marling labors. And if using wheels five inches wide on the tread, the ground would be kept smooth and firm under the wheels, even if in a condition of moisture which would cause the ground to be cut up and become miry under narrow rimmed wheels. Two mule carts would require but half the present number of drivers. These remarks apply as well to the hauling of marl from the diggings.

4. The compost heaps are mostly, or to a great extent, built on the fields, each one in the middle of the acre which it is to cover. Of course, from the heap to the most distant parts of the acre, is but little more than forty yards—and this is the extreme distance to which the carts have to haul from each heap, and much of the hauling is within the distance of twenty yards. To use carts for such short trips is a great waste of labor—even though each cart may make 120 or more trips in a day. For such short distances, I think it probable that wheel barrows, (running over moveable plank tracks,) would be cheaper—or scrapers, if the texture of the compost admitted the use of the scraper.

5. The roads ascending from marl-pits (when such ascending roads are used) for want of uniform grading, and as gentle ascent as the ground would well allow, cause great increase of draught, and loss of power in hauling. Also, in every case observed, there were serious defects in the manner of working the pits, causing great loss of labor, and in some cases of marl also. All these defects might have been found out and remedied, by an attentive reading of my directions for working marl-pits, in the late (5th) edition of the "Essay on Calcareous Manures." This book was in the hands of most of these marlers; and their failure to attend to the instructions there given, and their readiness to admit the same from my verbal directions, is in evidence of how much more effective is the one made of advise than the other. Printed and general instructions, however, applicable to practice, and to usual and various circumstances, are rarely well attended to and observed in practice even by the most intelligent readers. Yet the same persons, and also the less informed persons who rarely read for agricultural instruction, will eagerly listen to, and gladly profit by similar verbal directions, offered to each particular case and locality.

6. The good (or improving) land is cultivated so regularly every year, that it may be said to have no cessation of crop-bearing; and when under cotton, there is rarely a change to any other crop. It is alleged, (and I do not mean here to oppose the correctness of the opinion,) that the production of cotton, and quality of the product, are not impaired by the longest known continuation of culture, with 500 or 600 bushels of compost manure, (mainly of earth as described) annually supplied to the land.—Even if so, the improvement might be more rapid, and products still better, if with more change of culture, and especially if preceding cotton, if only one year preceding 2 or 3 of con-

tinued cotton, by a manuring pea crop. There is no such thing attempted as any regular rotation of crops in Edgecombe.

7. A general error is to make too limited use of peas as a manuring crop. This is the most valuable plant for manuring in a southern climate—(and there is as valuable a clover in a more northern and humid climate—) and nowhere does it grow better, with more certainty and more luxuriance, than on the soils of Edgecombe. Yet except as the universal secondary crop among corn, peas are rarely grown—and beneficial as is this mode, it is not sufficient to bring into operation half of the manuring value of this inestimable plant and crops, for this region.

8. Owing to the wide extent of cotton culture, and the small extent of forage crops and products—and the entire want of grass culture and of meadows, even on the lands admirably suited for grass—there is a frequent scarcity of hay. To supply the deficiency, *northern* hay is imported, and used not only by the townmen, but to more or less extent by some of the farmers of the country. This is a shame—a disgrace to the agriculture of Edgecombe, which I trust will not be suffered to continue much longer.

Thus, I have as freely condemned what I deemed wrong, as applauded what is right.—But in censures thrown out on such slight opportunity for observation, it is more than probable that the cause may be in some degree mistaken. And even if not mistaken, he is not apt to be deemed correct in opinions entirely opposed to those of the censured.

Marlbourne, Va., Aug. 25, 1854.

From the Farm Journal.

FACTS AND PRINCIPLES IN THE CHEMISTRY OF AGRICULTURE.

BY J. S. HOUGHTON, M. D.

Many persons who undertake to learn any science, think that they must try and remember a *whole book*, with all its words, its illustrations, its tables, its discussions, and even its preface and index, and, in despair of doing this, give up the task of learning any thing as hopeless. Now the true way of reading with profit is to pay no special heed to the words of the author at all, unless they are, for a single line or sentence, particularly striking or beautiful, but to try and catch the chief thought, if it has merit, and make that thought your own. There is a vast deal of difference between having an intelligent knowledge of a book as you read it, and making the substance of the book your own, so that you can give it off from your own mind either in conversation or writing.

The real matter of a book on agricultural chemistry, for instance, may be set down in a few brief notes, on a half sheet of paper, perhaps, and yet the author will spread it out, *in words*, through two or three hundred pages. Now if you mark the important parts with a pencil as you read, and then draw off these facts as principles, on a bit of paper, the act of *reflective attention*, which this process requires, will enable you to transfer the gist of the book to your own mind, as well as to the paper. Great facts and principles require elucidation it is true, but I have often thought that they were comparatively lost to the general reader, when embodied in long pages of close type, instead of being separated and put distinctly before the eye in bold, brief declarations. A good illustration of the difference between a book as written and its real matter, may be seen by looking at Prof. Norton's Prize Essay on Agriculture, published by the New York State Society. In that essay Prof. Norton first writes out the matter in words, and then gives a review of its contents, not in an index alone, but in a brief abstract of notes, stating, in half a dozen pages, or thereabouts, the substance of more than a hundred probably. Young readers should make such abstracts of all scientific works for themselves.

In this article, I propose to give you a few facts and principles in agricultural chemistry, without many words about them, to show how they look thus separated.

Organic Elements of Vegetable Matter..—Oxygen, Hydrogen, Nitrogen and Carbon.

Inorganic Elements consists chiefly of four acids and four alkalies. The four acids are silicic acid, phosphoric acid, sulphuric acid and muriatic acid. The four alkalies are potash, soda, lime and magnesia.

It is useless to give a plant abundance of any one of its constituents—lime for instance—unless you are sure at the same time that the other ingredients are present also.

Ammonia is the great stimulant of vegetable growth, without which all other nutriment may remain inert and dead. It is a compound of nitrogen and hydrogen gasses.

Nitrogen is the nutritious, or flesh making principle of vegetables. It is found in great abundance in some grains (as wheat,) and such grains are always exhausting to the soil. Carbon, in the shape of gum, starch, sugar, butter, oil, fat, syrup, &c., never enters into the composition of flesh to any great extent, and is chiefly used to admit breathing, and to sustain the heat of the body by being consumed in the lungs. It is also deposited in the body as fat.

In the germination of seeds a small portion of vinegar, or acetic acid is found. Alkalies, as potash and soda, combine with and neutralize this acid, and thus assist germination. Hence one important use of wood ashes, containing potash, in the hill with potatoes.

Organic matter as muck, leaves, tan, sawdust, &c., can be of little use until it has undergone decomposition, so as to put its salts and grasses in a condition to be taken up by plants. Hence the reason why some persons find so little benefit from the use of raw muck, half rotted tan, &c.

Peaty soils are always acid. Seeds will not germinate well in such a soil without the aid of potash, soda and lime to neutralize the acid, and perfect the decomposition of the organic matter.

Lime, in the caustic state, possesses the power of setting free, or bringing into action the potash which a new soil may contain, and hence may serve as good a purpose as lime and ashes.

Anthracite coal ashes are of little value in agriculture except to open a heavy clay soil. The chief ingredients of any value are charcoal and sulphate of lime or gypsum.

Charcoal decays very slowly under ordinary circumstances, It will last fifty or a hundred years in a dry loam, perhaps longer. In a moist soil, rich in muck, it decays more rapidly, and furnishes carbonic acid to plants, or carbon. It is chiefly valuable, however, as an absorbent of ammonia, and for giving a dark color to light sandy soils. It also retains moisture.

Nitrates, as nitrate of potash (saltpetre) produce *straw* in grain; sulphate as sulphates, of soda and sulphate of lime, promote the growth of grain, beans, peas, &c.

It is not known how far soda is able to take the place of potash in the soil, or whether it is indifferent which of the two alkalies is supplied to plants. It is better to furnish both soda and potash when absent from the soil.

Phosphate of lime is a combination of lime with phosphoric acid. It is the chief constituent of the earth of bones. It exists in the seed of many plants, in all the varieties of grain which are cultivated for food, and in the ashes of most common plants. It exists also largely in milk. It is almost always deficient in the soil.

A sandy soil admits the heat of the sun more rapidly, and retains it longer, than any other soil; but it is not so retentive of moisture. The application of charcoal and salt increases the moisture of sandy soils, and so does deep plowing.

The roots of plants require a supply of oxygen in order that they may be maintained in a healthy condition. The atmosphere and water furnish a supply of oxygen, but such, possibly, can only be obtained where the soil is sufficiently open to permit the free circulation of air and water among its pores, and to carry off excess of water, or water robbed of its fertilizing properties. Plow deep and drain.

Sulphate of lime (plaster of Paris) requires much heat and moisture to render it useful on land. In dry seasons sulphate of soda (Glauber's salts) will prove more beneficial. Bones dissolved in sulphuric acid and common lime are generally more valuable than gypsum.

Quick lime expels ammonia from decomposed or fermenting manures. Lime should never be used in the manure heap, unless covered with a large quantity of well pulverized muck.

Lime has little or no effect upon soils in which loam or vegetable matter is deficient. The effect of lime is, in fact, to eat out vegetable matter.

It is important to bear in mind that the application of lime, soda, potash, or bones, forms a *primitive addition* of mineral or inorganic matter to the soil, while by plowing in crops we return to the land only the inorganic salts which the plants have taken from it during their growth—the rest is organic matter.

Plants require all their constituents present in the soil, in small quantities at least, to furnish a full crop. Hence the principle that the more various the fertilizing materials added to the compost heap the better, if a good supply of dry muck be supplied to absorb the ammonia produced by decomposition.

Potatoes and tomatoes flourish best in soils which are not very rich in nitrogen. Pig manure and night soil are not useful for these crops unless very minutely divided by loam. The chief ingredients of potatoes are carbon, in the shape of starch in the inorganic portion, and potash in the organic constituents. Hence fresh muck and ashes are the best fertilizers.

Turnips require less organic matter (loam of mould) than many other crops. Their chief constituents are phosphate of lime and potash.

Peat meadows require sand to render them fertile as imperatively as sandy soils require muck.

And so I might go on through fifty, or any indefinite number of columns, giving facts and principles observed in reading, which are worthy of being specially noted and remembered. I have taken these few passages at random from some works lying near me at this moment, partly copied and partly made up from hints which met my eye. I have done this, not so much on account of the great value of the facts set forth, as for the purpose of showing the student in these matters how much clearer a fact looks, and how much more easily it may be studied and remembered by separating it from the substance of a volume as above.

Now if the reader of this article had just read the works from which the quotations are made up, and then had exercised his eye and mind and hand in the art of selecting and writing down the passages, we should readily suppose that he would be more apt to remember them, than if he had only glanced an eye over them in comparatively *passive way* of reading. I trust that the valuable suggestions here given may not be lost upon young readers who are ambitious of acquiring knowledge.

Philadelphia, April, 1854.

From the Dollar Newspaper.

LETTER FROM MINNESOTA.

St. Paul, M. T., July 28, 1854.

Dear Sir—In former communications I have given my reasons for wishing to give Eastern readers correct information regarding the climate, soil, and productiveness of the Territory of Minnesota. I will now give some practical facts upon the yield of the soil, a point upon which, till recently, I was not well "posted."

Our farmers are about closing their wheat harvest. I have been for some two weeks almost daily riding over the country, and had a fine opportunity to collect correct information. In the Cottage Grove district, about eighteen miles north of St. Paul, on the east side of the Mississippi, the natural state of the wild land is smooth, open prairies, alternating with belts of oak timber. The farms are generally so arranged that they take in about 100 acres of clear land, with 60 of timber. The clear land is not nominally, but absolutely clear and smooth. On my farm I have 160 acres of such land, every inch of which may be ploughed without the least obstruction; my timber, 80 acres, lays on one side, in a body, and this is the condition of very many farms in this Territory. We use, in farming, all the labor-saving machinery we can: our reapers, by which two men and four horses can cut from twelve to fourteen acres of wheat per day, work charmingly on this smooth land. The first breaking of the lands requires four horses,—the plough about eighteen inches; from two to two and a-half acres per day is the average. Fencing is an item of expense. Rails, in this vicinity, are easily procured, though some prefer lumber at from twelve to fourteen dollars per thousand. We never fence for stock; only the farming lands, over fields enclosing from fifty to one hundred acres, owing to the improvements. Such lands as I now speak of may yet be purchased for from $2 50 to $7 per acre. There are in this vicinity (Cottage Grove) no more public lands. The $1 25 per acre lands (Government lands) are on the west of the Mississippi.

We grow summer and winter wheat, corn, (principally the yellow flint dent,) oats, barley, millet, hemp, potatoes, all leguminous plants, of which the gardens show not only a great variety, but of a quality superior to anything I have ever seen.

The wheat now harvesting, of which I have made a fine collection of specimens in the straw, will average about thirty-eight bushels to the acre. On the Vanslyke farm, it is said to be forty-five bushels ; on others, mine included, not over forty ; some as low as thirty bushels to the acre. The other crops, the oats, corn, millet, &c., bear the same proportion. It may be our crops are a little better this year than the two preceding years I have been here, but I think the difference is not much, if any.

Our expense in putting in these crops, is just the expense of ploughing, sowing, &c.,—no more. We use no fertilizer of any kind. There are vast straw heaps in our places, which when they rot we will probably draw out and spread. The material soil will out-last one man's life time.

The expense of reaping is just 87 1-2 cents per acre, that of thrashing but a few cents per bushel,—all done by machinery.

In regard to the market, our territory beside the Mississippi, has a large navigable tributary and steamers in abundance. Add to this, the prospect of a speedily constructed railroad to connect with the great thoroughfares East, for which Congress has given us a very liberal donation of lands, so that the present, and increasing cheapness and readiness of transportation, will hold the ratio of the present prices of produce but a fraction below those of the East. Aside from this, our home market will for years to come, consume all our agricultural surplus.

A farmer can crop one hundred acres of wheat here with no more expense than it would cost in Pennsylvania to crop thirty, provided he avail himself of all the improved appliances. 100 acres, 30 bushels per acre, 3,000 bushels Minnesota yield. 30 acres, 30 bushels per acre, 900 bushels Pennsylvania yield. One dollar per bushel Pennsylvania, $900 ; 90 cents Minnesota, $2,700—difference in favor of Minnesota $1800. The difference is even more. Take the difference in the interest on the prime cost of the land, the expense of manure, the expense of subdivisional fencing, the difference of wearing of plough, teams, wagons, &c., on those flinty lands compared to our loamy soil,—I believe adding all these items in our favor, the difference of profit is greater than I have set it down.

"The "Great West" is the great blessing of our nation in more ways than one. Here a man, however poor, with health and industry, may come in time to possess a farm in fee simple. The moment he lands he can find employment at the most exorbitant rates. We need laborers, and have the cash to pay. This man soon makes a purchase, and that inspires a *hope* he will some day now have a home of his own, and thousands and tens of thousands of such men, now wealthy, people the West, fill offices of great responsibility, and have a full share in directing the affairs of this nation. The very men who should be in the councils of a nation, for they are in earnest, are practical, and know what it is to live ; as Carlyle says, life to them is a practical reality, a great earnestness.

The population of St. Paul is about 5,500, has four weekly and four daily papers. Merchants are prepared to supply all the demands of the country. Good oxen are worth from $100 to $160 per yoke. A fair span of horses about $300. Flour selling at $7 50 ; Pork $16 per barrel. More anon. M.

THE FARMER'S HOMESTEAD.

If now, finally, we go back with him from all these exterior liabilities to his own premises again, we shall hardly need, by this time, to memorialize the farmer of what is required of him in his house. If the school has disciplined his thinking faculty and refined his taste ; if the town-meeting has waked in him the exalting sense of citizenship ; if the church has lifted his heart into communion with the Father of all families, and inspired his conscience by the prophecy of life eternal, he will scarcely be content to live a driveling dullard at home, to play the selfish tyrant in the little political economy of kitchen and parlor, or to be worse than an infidel by providing not for his own. By derivation, the significance of your common title, husband-man, holds you to do something. Husband-men, I suppose, are not bachelor-men. Our agricultural college, when it is established, will have to find some more consistent style for its diploma than Bachelor of Husbandry. Now, as Nature has done her part towards furnishing a husbandman, by making you a man, she seems to presume you finish the business by making yourself a husband. And when you have done that initial duty, it will remain for you to take off the edge of two satires I have heard flung at married people, doubtless by some malignant critic who, on being asked what matrimony was like, said it was "going home by day light, after courtship's masquerade;" and then what married life was, that it was "matrimony doing penance." Give him the lie. Husband is house-band, organizer of house-hold life. Organize it by not only the sterling, homebread, domestic moralists, but by the binding charm of those thousand amenities that distinguish a cultured home from a barbarian's hut. The delicate angel of the beautiful knocks at your doors, and begs admission, as well as the strong angel of the useful. Is there the fine eloquence of order; is there the disposing touch of taste; is there the simple and just adorning of nature round all your door-stones, in all your front lawns, on the walls, and tables, and furnishing of your dwellings? How many hours of a spring morning would it take to embower your windows with all that is graceful in green foliage, and winning in floral splendor? Plant trees before you purchase Venetian blinds and painted pickets. You will carry a tenderer, and therefore a manlier heart in your breast all day, if you pass out of a genial circle through the fragrance of lilies, and roses, and honeysuckles. See that the sons and daughters are interlaced by bands more spiritual than gregarious bipeds. Let the harmonies of evening music weave their souls into some gentle and lofty sympathies, gaining the boys over from ruder pleasures and doubtful companionships by the preoccupying satisfactions of a cheerful, courteous and hospitable fireside. Starve your palate, if need ever were for such denial, to stock your library. Raise the tone of farmhouse table talk if you can, and let the ladies, above stale gossip, common places of the day's work, and scandalous tattle. Hang the proceeds of your premiums at the cattle shows on the wall, not in battle-scenes or daubed millinery, but in the shadings of some pleasing picture that reflects a glorious idea or a heroic sacrifice. Household life is not to unfold into grace and moral loveliness by accident, any more than the wealth of your garden or orchard. It must be cultivated. And I take it, christianity speaks of that higher kind of economy as much as of butcher's meat and breadstuffs, when it pronounces him that provideth not for his own, worse than an infidel.

Gentlemen, your patience has let me lead you through this round of your relations, to the school house, town hall, church and homestead, in unworthy fulfiment of my humble part in this day's varied and cheerful entertainments. When I could not show you the illustrious oxen, nor aristocratic poultry, nor even an astonishing cheese, you have kindly condescended to let me try in another way, and do I as could by showing what is in my heart towards your work. If I have seemed to judge your calling by too strict a standard, I insist that I only thus pay it the profounder compliment. By my love for it I am jealous that it realizes its inherent and providential grandeur. To brave natures, nothing is so exhilrating as an aim that strains the sinews.—Everything in these times demands that our manhood, trained in whatever school, be made upon a scale of magnanimous proportions. Everything threatens and scorns a contracted culture, a stationary policy, and an inactive brain. But beyond the common appeal uttered to all modern men alike, it is for you to build up a character that is distinctively professional.—Show the world examples that will bear inspection (let who will be judges) of the agricultural type of manhood. Boast nothing, but *be* so much that boasting shall be excluded. If it be true that your class is now on the eve of vaster achievements than have ever marked its progress yet, these furtherances are to come only through the intellectual wakefulness, the moral sincerity the domestic virtue, the religious whole-heartedness of you, its most favored members.—*Rev. F. D. Huntington.*

CRUELTY TO ANIMALS.

Cruelty to animals has recently been made the subject of legislation in several States of the Union, and, as we think, with much propriety. In our daily walks we are sometimes constrained to think the subject might not inappropriately employ the attention of our own Legislature in some one of its future sessions. We have both heard of and been witness to repeated acts of inhumanity, from things in human shape, toward the brute creation, in our own city, and think the payment of a fifty dollar fine, or the imprisonment of some six weeks in the country jail for each offence, would be a penalty conducive to the suppression of this evil. With the great majority the law would never find occasion for enforcement, but, to the shame of humanity be it said, there are some natures so utterly barren of all sentiment, of refinement, of gentleness and worth, that it seems a very enjoyment to crush out the life of the harmless insect—to cruelly maltreat the mute, inoffensive, yet most useful domestic animal, to wreak a weak and pitiful vengeance on an object unable to comprehend the cause of its punishment or to resist its infliction. Upon all such the law would exercise a salutary effect: not so much to correct the innate depravity of their natures, but to compel them at least to respect the indignant sentiment of the public mind, and at the same time to shield the suffering animal from their brutal treatment. One who can, even under an imaginary provocation, torture his beast, is, to say the least, a senseless, passionate, unreflecting creature; and he, who, to gratify a devilish and debased disposition, will wantonly inflict pain on a dumb and powerless animal, the bearer of his burdens and the alleviator of his toils, has a spirit that would disgrace the beast he thus abuses. And we would ask no better test of a coward y, cringing heart, than to find one given to cruelty, and inhuman treatment of his inferiors, whether among man or beast. Consideration for the feelings of the one, and kindness towards the other, are the marks of a man, as true as he is generous, of a spirit as brave as it is gentle. Cruelty toward anything incapable of resistance, is nothing less than cowardice, while cruelty to an object incapable even of resentment, is evidence of a heart so foul, that it is fit only for the scorn and scoffs of angel, man and devil.

We read that men, in former times, did gloat over the sufferings of each other: did torment, with the cord, the fagot and the knife, their captive foes—

> " And ponder still,
> On pangs that longest rack and latest kill."

But neither in savage nor in civilized life do we find mention of mankind making merry over the bleeding body and broken limbs of dumb domestic animals. It is said:

> " The poor beetle that we tread upon,
> In corporeal suffering feels a pang as great,
> As when a giant dies."

So that, in point of cruelty alone, the crime of its death is as great as the murder of a man. And it may be that we must answer for all the evil of our life in the day of final judgment, even such sin will cry aloud for retribution on our head. The angel standeth in a path of many besides Balaam of old, and the sword of wrath, though unseen, is yet suspended, and the groan of the beast, though inarticulate, is not unheard.

In fine, domestic animals minister to the necessities of man, and, therefore, to abuse them is ungrateful; they keenly feel the infliction of pain, and therefore it is cruel; they are incapable of resistance, and therefore it is cowardly; they cannot know the cause of their suffering, and therefore it is fiendish.—*Nashville Gazette.*

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Blessed is he who scattereth ashes upon the sidewalk, for he shall not slip down.

THE FARMER'S JOURNAL.

RALEIGH, N. C., OCTOBER, 1854.

☞ *All letters on business or subscriptions, must be addressed to W. D. Cooke & Co., and communications for the Journal to Dr. Jno. F. Tompkins, Raleigh, N. C.*

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B. B. Rives, Greene County, N. C.
E. C. & Y. Jones, Yanceyville, N. C.
A. Willis, “ “
Wm. Long, “ “
Col. John H. Harrison, Ringwood, N. C.
Gen. Hiatt, Guilford County.
L. J. Haughton, Chatham County.
W. D. Reddick, Newby's Bridge, N. C.
Dr. Jno. Shackelford, Trenton, N. C.
Owen Fennel, Harrell's Store, N. C.
James J. McRee, Elizabethtown, N. C.
Col. L. W. Humphrey, Richland's, N C.
Col. L. W. Montfort, Onslow County.
Henry Elliott, Esq., Cumberland Co.
Col. W. H. Tripp, Beaufort County, N. C.
Dr. W. Carstarphen, Garysburg, N. C.

THE PROGRESS OF AGRICULTURE IN NORTH CAROLINA.

The good old State of North Carolina to which the name of Rip Van Winkle, has heretofore been so justly applied, has at last aroused from her slumbers, shaken off her dull feelings and entered with her sister States, fully and fairly upon a thorough improvement in agriculture. This change of affairs in our State cannot fail to produce the most pleasing anticipations in regard to the future in the breast of every true hearted North Carolinian. With a soil and climate such as we have possessed, it seems really strange that the farmers of our State should have been content to be constantly going down-hill for so long a time. Man is truly said to be a creature of necessity and hence it is too commonly the case that where the lands are by nature the most fertile, there we see the most murderous system of farming practiced. Besides, there is another very prominent reason why the agricultural interest in North Carolina, has been allowed to languish so long. It was until recently the received opinion among farmers in our State that if a man was seen to read books, and known to farm by them, he was certain to have corn to buy. It required no small degree of moral courage on the part of those who first began what is called book farming, for they were constantly ridiculed by their neighbors and prophesies were made on every side, that certain ruin awaited them. The old "Wise Acres" were frequently seen to shake their heads knowingly when it was whispered about that a certain young man, a farmer in the neighborhood, was making experiments with lime plaster, and guano. They often lamented that after working so hard that he should be so poorly paid for his labor; in fine, unless he sowed turnips on the full moon in August, and killed his pork upon the increase, as it is called, of the moon, he was set down as being a miserable poor farmer. Such observations as these were constantly sounding in the ears of those who first began a system of agricultural improvement in North Carolina. But we now rejoice to say that the mist is fast falling from the eyes of our farmers, and that there is now as great a desire among them to raise the longest ear of corn as there once was to raise the longest pole upon election day.—From the green mountains of the west to the ocean washed sea shore in the east, our farmers are using every effort to excell in agricultural improvement. Where there used to be perfect carelessness and indifference in farm management, the greatest care is now exercised in husbanding manures and properly preparing lands for crops. And the result of this is an increased amount of products from the same quantity of land, a rise in the value of farms, and general contentment among the farmers. From the indications, we would ask; may not every North Carolinian look with pride and pleasure to the future prospects of our State, may we not soon expect to see many of those who have gone from our midst in search of wealth, returning and exclaiming in the fullness of their hearts that North Carolina, after all said and done, is the greatest State in the Union. There is nothing that will have a greater tendency to bring about such an era as this than our State and county agricultural Societies. These institutions together with a free circulation of agricultural papers, have produced such astounding results as we see in the agriculture of other States and we surely cannot expect a different mode for improving the farming interest of our good old State. The approaching State Fair will, we think, afford the proudest and most pleasing era in the lives of our people. The first Fair, was a good one, so acknowledged by all who witnessed it, but it cannot begin to compare with the approaching one. We have stated that there would be twenty thousand people in Raleigh at that time, and we still cling to this opinion notwithstanding some of our old fogie friends with the same wonder and astonishment as they did last year think that we are really visionary in our calculation. We want every body to come, and our word for it there will be some place provided for their accommodation.

* * *

THE UNION AGRICULTURAL SOCIETY AGAIN.

We had intended, with what we said in our article in relation to Mr. Bruce's Address in this number of our paper, to have let the Union Agricultural Society alone, but our determination is altered. We have just received from some unknown source a copy of the list of premiums offered by the United States Agricultural Society at their next exhibition at Springfield, with the following written upon the margin of the sheet: "If the Union Agricultural Society of Virginia and North Carolina can be justly charged with 'impudence,' what say you to the impudence of the Springfield people? It will be seen that they are confined to no particular locality, but says,

> 'No pent up Utica contracts our powers,
> The whole United States is ours.'"

In the first place we will state that at the time the September number of the "Farmer's Journal" was issued we were absent from home and did not read the proof sheet of the paper, as our publishers will testify, and the word "impudence," referred to in the above was a typographical error, and we have, as will be seen in this, the October number, made a correction in regard to it, which we did as early as the 12th of September, some six days in advance of our receipt of the copy of the premium list of the United States Agricultural Society with the interrogatory upon the margin of the sheet. But a word with regard to this interrogatory. We are asked the question, if the Union Agricultural Society can be justly charged with impudence for attempting to connect North Carolina with Virginia in this way, what would we say in regard to the people of Springfield. We say in reply to this, that the location of the exhibition of the United States Agricultural Society was made at that place by members of that Society and not by the people of the town. We have a National government and State governments separate and distinct from each other, and not of two States governed by one Governor and one Legislature, and there is very properly a United States Agricultural Society and different State Agricultural Societies, with which all seem to be satisfied with the exception of the originators of this Union Agricultural Society, the most of whom we have been informed, live in and near Petersburg. It is said by the friends of this Society that it is not designed nor will it injure the State Agricultural Societies of Virginia and North Carolina. We ask if it is not reasonable to suppose that whatever means may be required to sustain this Society must be withheld from the two State Societies. We have been credibly informed that this scheme was set on foot at the last State Fair in Richmond, by Petersburg people, and the idea was suggested to us by a gentleman of this State, who was originally a Virginian, in the cars on his return from the State Fair at Richmond, last fall. We then opposed it and told him that we would continue to oppose it. That we have been sustained by the farmers in North Carolina in our opposition to it we have abundant proofs in the many letters we have recently received in relation to it besides personal declarations which have been made to us. We say now that we hope that the farmers of North Carolina will not countenance this movement and that they will not attend the exhibition. We take occasion also to say that of our personal knowledge there is much dissatisfaction in relation to this matter among some of the most prominent members of the Virginia State Agricultural Society. We also say that it is high time that North Carolina had begun to act for herself, that she had built up a large seaport town on her sea coast and not allow Virginia on the one side and South Carolina on the other any longer to claim the credit of shipping such a large amount of her produce as has been the case heretofore.

A MODEL FARM.

There seems to be great anxiety on the part of individuals as well as agricultural societies in various parts of the country to establish a Model Farm. After giving the subject some reflection, we have come to the conclusion that, the term “ model is misapplied when speaking of a farm in the sense that it is to be understood. That a farm may be entitled to the name of “Model Farm,” when the proprietor has taken great pains in the cultivation of crops the arrangement of his buildings, &c., we do not deny. Such a farm is Panola, in Edgecombe county, where the owners Messrs. Dancy and Norflet, have spared neither time nor expense in having every thing about the farm in its place and a place for every thing. But such we think is not the idea intended to be conveyed by persons when speaking of the establishment of model farms under the patronage of agricultural societies. The object seems to be to have a farm which is to be so directed as to serve as a patern for the farmers generally to be guided by in their general farm management, the sowing and planting of crops, the application of manures and the harvesting grain. Now the fundamental principles of agriculture are the same every where, but there is a very great difference to be observed in general farm management in different sections of country. As an illustration of the truth of our statement we would call the attention of our readers to the fact that in different sections of country and even upon different farms upon the same character of land originally, different manures are required to produce the same crops. Some soils fail to produce on account of a deficiency of organic or vegetable matter while others need mineral matter. That an experimental farm would be of great service to the farming interest, of the country we have for a long time believed, but such a farm should not be expected to pay a profit to the owner.— For this reason it cannot be expected that any individual will undertake such a farm, and have the necessity of the establishment of an experimental farm in every State in the Union, which in order to succeed should, we think, be carried by the different State Agricultural societies.— We intend to urge upon our State Agricultural Society at its next meeting the establishment of an experimental farm to be carried on for the advancement of the farming interest of the State.

MEADOW LAND IN WESTERN CAROLINA.

Though the means of transportation heretofore, have not been such as to justify the raising of hay by the farmers in the western part of our State, for sale, yet we have been very much astonished, that for their own stock, they have not taken more care in preparing and properly seeding their meadow lands. In most of the counties in the western part of the State, the grass grown upon meadow land is of the very coarsest kind, much of it scarcely worth mowing. Some farmers have told us that they have sown the fine artificial grasses several times, but have failed to get a stand. This proceeds from the fact that the land is not properly drained and plowed, in the first instance, and besides this, there should be a dressing of guano and plaster, when the ground is first seeded. Grass lands like those for small grain should be plowed deep, and well harrowed in the beginning. In a short time the means of transportation will be such that the farmers of the west will have it in their power to supply our eastern towns with the large amount of hay which they necessarily use and at present buy mostly from the North. When this is the case the farmer who owns meadow land will find that it is most valuable of any. But the high lands of the western part of North Carolina are well adapted to the growth of clover and other grasses, some from loug cultivation may require an occasional application of manure, but if so, it will pay very well.

Mr. Bruce's Address.—We are indebted to some friend for a copy of Mr. Bruce's address before the so-called Union Agricultural society of Virginia and North Carolina. The address is an able one, every way worthy of him who made it, and but for the institution whose interest it is intended to promote, we should take pleasure in laying it before our readers. He says that it is the object of this new society to benefit rather than to injure the State Agricultural Societies of Virginia and North Carolina. Mr. Bruce, no doubt believes this himself, but we will assure him that such is not the received opinion among our people. We still cling to the opinion which we first advanced, that it is merely a commercial concern designed to benefit Petersburg.

A Valuable Farm for Sale.—We take pleasure in calling the attention of those who wish to purchase to the advertisement of Mrs Meredith's farm in this number of our paper.—The location is a healthy one, the land is susceptible of the highest degree of improvement, and the price is such as cannot fail to suit any one who may desire such a location. We have examined the farm thoroughly, and will at any time take pleasure in visiting it again with any person who may wish to buy. At the State Fair, will be a fine time to see it as it is situated within five miles of Raleigh.

The Virginia State Fair.—The second annual Fair of the State Agricultural Society of Va., will be held in Richmond, beginning on the 1st of November, and continuing four days. From the additional preparations made we expect that it will be a brilliant exhibition. We hope that our farmers will attend generally and compare notes with the farmers of the Old Dominion.

Annual Address before the Southern Agricultural Association.—We take pleasure in stating that John S. Dancy, Esq., Ex-President of the N. C. State Agricultural Society, will deliver the next annual address before the Southern Agricultural Association at its fall meeting, which takes place in Raleigh during the week of the State Fair. Mr. Dancy is a ripe scholar and a fine farmer, and the public may look for an able address.

A Correction.—In the last number of our paper in an article in reference to the Union Agricultural Society the word impudent is used which should have been imprudent. While we are dead against this movement on the part of the people of Petersburg, we do desire nor intend to be insulting in our remarks.—[Ed.

EDITOR'S TABLE.

We are in receipt of that valuable work for September, the "Soil of the South," which as usual contains a large amount of useful information for the farmer.

The "Southern Planter," published in Richmond, Va., for September, is a good number and cannot fail to advance the farming interest of that State.

The "Southern Farmer" is the title of a new paper, weekly, recently established in Petersburg, Va., at $1 per year, edited by Thomas J. Pleasants and Andrew Nicol. We wish them much success in their efforts to advance the cause of agricultural improvement.

The "Ohio Farmer" visits us weekly and is well filled with useful knowledge chiefly devoted to agriculture.

The "Farmer and Planter," published in Pendleton, S. C., by Seaborn & Gilman, monthly, is a good paper of the kind, and will we hope be liberally sustained by the farmers of South Carolina.

Miscellaneous.

THE FAIR! THE FAIR!!

It gives us great pleasure to state that the preparations at the Fair grounds for the approaching Fair are progressing with cheering expedition. We understand that several extensive halls are to be erected for the accommodation of the various classes of articles on exhibition, and an amphitheatre, with seats rising in successive tiers, at a convenient point for observation. The halls will be:—A large Reception Hall at the principal gate, a Planters' Hall, a Mechanics' Hall, and Floral Hall, and a Ladies' Refreshment Saloon. Floral Hall has been very considerably enlarged. The other buildings now on the grounds are to be enlarged also, and better fitted up for the purposes for which they were designed.

We understand further, that the committee recently appointed by the citizens to ascertain the amount of accommodation for visiters that can be procured in the city, are succeeding in a most flattering manner, and that there is every probability that all who come will be agreeably and cheerfully entertained.

Delegates have been appointed to attend the Fair of the Granville County Ag. Society at Henderson, and of the Maryland State Ag. Soc. at Baltimore.

The Executive Committee are very desirous that all the members of the Society and those who design becoming such, should be present at the meeting of the Society, in the Commons Hall, on Monday night the 16th of October. At that time the Judges will be appointed.

Members of the Society will procure their *badges* from the Treasurer—Mr. Hutchings—on the morning of the 17th, at his office in Reception Hall.

Exhibitors are particularly requested to have all their articles at the grounds by Monday the 16th, in order to give the several committees time to arrange every thing before the opening of the Fair, and to secure to themselves a good location for their articles.

Power will be provided for the purpose of testing the different kinds of machinery that may be on exhibition.

We publish below the result of the deliberations of the Executive Committee, including the names of the special committees and their respective duties. It will be seen that a rigid and efficient system has been adopted, which we trust will contribute greatly to the success of the Fair.

1. COMMITTEE OF RECEPTION.

John C. Partridge, Chairman,
James F. Jordan,
Wm. D. Cooke,
Jere. Nixon,
Geo. T. Cooke,
Wilson W. Whitaker,
Seth Jones.
} On reception of stock.

2. FLORAL HALL COMMITTEE.

Dr. W. R. Scott, Chairman,
P. F. Pescud,
W. L. Pomeroy.

3. MECHANIC'S HALL COMMITTEE.

John C. McRae, Chairman,
C. B. Root,
C. W. D. Hutchings.

4. PLANTER'S HALL COMMITTEE.

Wm. R. Pool, Chairman.
Wm. A. Eaton,
E. P. Guion.

It is the duty of the Reception Committee to receive every article intended for exhibition, and if found worthy, cause it to be entered upon the Register. They shall also see that each article is properly labelled and sent to its proper destination. It is the duty of the branch of the Committee on Stock, to examine all stock offered for exhibition and decide whether it is worthy to be received.—When received they will give to the exhibitor a card of acceptance, which must be presented to the Committee of Reception at Reception Hall, whereupon the stock will be duly registered.

The duties of the Committees in Foral Hall, Mechanic's Hall, and Farmer's Hall shall be, to receive all articles sent to them by the Committee of Reception and arrange them in the best manner in the several Halls. They shall have the sole charge of the Halls, and will not permit any article to be placed in them unless it has been labelled by the Committee of Reception.

No article shall be removed from the Halls without the consent of the Executive Committee, or without a receipt being given for the same.—*Post.*

THE NORTH CAROLINA STATE FAIR.

The undersigned takes pleasure in stating, that a public meeting of the citizens of Raleigh, was held at the City Hall, on the 12th instant, for the purpose of making all necessary arrangements to accommodate visitors to the Second Annual State Fair of the North Carolina Agricultural Society, beginning on Tuesday the 17th of October next. There was much interest expressed by all present; and from the desire manifested, there will doubtless be ample accommodations afforded to all the agriculturists, mechanics and others, of the State, who will by their presence *show* that they have the true interests of the country at heart; and every assurance was given that all would be properly accommodated.

Three committees were appointed by the meeting to attend at each of the three principal Hotels of the city, for the purpose of referring visitors to places where they can be comfortably lodged, after the rooms of the Hotels and other public houses are occupied.

All those who may desire to be relieved from the trouble of looking out for themselves, will please call at the *Yarborough House*, where there will be a committee, consisting of Messrs. Yarborough, J. K. Marriott, T. J. Utley, P. F. Pescud, Seaton Gales, and Col. John F. Taylor; *At the City Hotel*—Capt. Lawrence, Col. R. I. Wynne, O. H. Perry, J. M. Towles, and T. H. Selby; *At Guion's Hotel*—Capt. Guion, R. S. Tucker, J. H. Biggs, Wesley Whitaker, jr., and C. W. D. Hutchings. These committees will give visitors directions, whereby, they can be suitably accommodated.

WM. DALLAS HAYWOOD,
Intendant and Chairman.

Raleigh, Sept. 18, 1854.

ANALYSIS OF THE SOIL.

We make the following extract from an Address before the Hampshire, Franklin and Hampden Agricultural Society of Northampton, Mass., by Wm. S. King of Boston, editor of the *Journal of Agriculture.* There are some general laws and principles which apply equally well to all localities. The necessity and the advantages of analysis of the soil, comes into that class of subjects, and it is time that we should understand, that our operations for the improvement of the soil, or in supplying food for the plants need not be a strike in the dark, but may be conducted scientifically, and understandingly and with as much assurance of success, as the physician prescribes for the physical wants of man.—*Soil of the South.*

In entering on a farm, the first things that a judicious farmer ought to ascertain are; the component parts of his soil and subsoil, and of the crops that he proposes to raise. These last may be learned from books; but the other items of knowledge must be obtained from an Analysis of the Soil; and it would be folly, as well as rank cowardice to deny, that the importance—nay, the very value in the smallest degree—of Soil Analysis is a matter now seriously questioned by some able men; as it is also ignorantly ridiculed by many simple ones.

That such knowledge is valuable and necessary, stands to reason. For plants, like men, to grow,—to live, must feed; and this sustenance must come from the earth, or from the air, or from both. What nourishment the air contributes, is very generally agreed upon; and, the earth supplying the rest, it becomes a matter of no little interest and importance to ascertain the state of the larder. If chemistry, through an analysis of soil, is not competent to this; we can not, otherwise, learn it.

Again, soils oftentimes contain noxious ingredients that impede the growth, or even affect the life of plants. These, when ascertained, may be neutralized and made harmless; or, as frequently happens, be rendered, in some other combinations, positively beneficial to vegetation.

The opposition of so many farmers to the application of chemistry—a science capable of doing them so much good and no harm—has ever been to me a matter of surprise. Let us now consider the objections.

The first objection raised against the value of Soil Analysis is: That in so great a quantity, as is the soil, comparatively; it is impossible, to discover atoms so small, as are many of the constituents, whose presence or absence would cause it to be productive, or sterile, as the case might be. In other, and plainer words, because it appears improbable, it is called impossible.

This is a singular argument to use in this age of the world, when every day exhibits its miracle; and the fingers of Clio, the Muse of History, ache with recording the triumphs of Science! When Jenner announced that Vaccination, was a preservative against Small Pox, the entire medical nose of Europe was upturned in derision. Wise men said it was puerile to expect so great a result from so inadequate and unphilosophical a cause. Pious men rolled up the whites of their eyes, and pronounced it sin, to set up the teat of a peaceful cow as a protection from the scourge of God. Conservative men called it "A new doctrine;" and, with this unanswerable argument, set it away among humbugs. A woman—to the honor of the sex be it declared—(the Lady Mary Whortley Montague) thought *it could be tried;* and who, now, denies what the wise men, and the pious men, and the conservative men of the last century declared to be impossible?

You cannot, for instance, (say the opponents of Soil Analysis,) find, and properly estimate the lime where it exists, as is often the case, in the proportion of thirty pounds of lime, to two million pounds of soil on an acre. This statement of the case would appear more startling to me, who am more of an annualist than an analyser, were the former feats of science unknown to me. But when I know that the eyes of science have seen a star, so distant from our globe that its light, jogging along at the gentle pace of two hundred thousand miles in a second, consumes more than three thousand years in coming from home, hither;—when I know how far sighted she is, I am prepared to believe that she may be gifted with a nicety of touch, to finger, weigh and appreciate any atom, however small. When science can read the decrees of God, before they are promulgated, (as when foretelling eclipses and the approach of the erratic comet,) it is not overtasking credulity to declare, that she can discover the component parts of a piece of dirt, taken in the hand to be examined at leisure.

But we are told, with an air of ill-concealed triumph, that men eminent for their scientific acquirements have pronounced the Analysis of Soil, in the present state of Chemical Science, to be of little or no practical value to the farmer. Well, men sometimes ascend the hill of science to such a height, that they do not see objects palpable to others, who stand below the mist-clouds that always envelop its summit. Thus Dr. Dionysius Lardner had proved to his own private satisfaction and that of his school, the impossibility of navigating the Atlantic with steam: when he was roused from his reverie, by the signal guns of the "Sirius;" as, unimpeded by the conclusions of the philosopher, she sailed into the bay of New York.

Then, again, scientific men of equal eminence have declared it to be an invaluable and an indispensable aid to the farmer; and "who shall decide when doctors disagree?" When men of high scientific attainments and unimpeachable character assure us that an analysis of our soil, *sufficiently accurate for all practical purposes, can be made; and is made;* we are warranted in overlooking the denials of many others. Indeed, it appears to me, from a glance at the array of authorities on either side, that the opponents of soil analysis, are chiefly men of the closest; while its friends are, not only men of equal standing as chemists, but withal, practical agriculturists.

For my single self, I am not ashamed to believe with such men as Liebig, Boussingault, Johnston and others in Europe; and with Charles T. Jackson, Norton, Mapes, Enderlin, Porter, Horsford, and many more in our own land.

The second objection urged against the value of an analysis of your soil is, that the quality of the soil on different parts of the same farm, and often of the same field greatly varies.

This, at first sight, seems plausible; but we know that the chief variation is in the proportionate quantities of sand, clay, &c.; and it is not with these, that the analysis has chiefly to do. Allowing alumina (clay) and silex (sand) to constitute ninety per cent. of any soil, in any proportion; it is rather with the remaining ten per cent. that the chemist deals. And the soil of a farm that has been in the same hands, for a course of years—every field subjected, as is usual, to the same treatment in rotation—will be found to be very similar, one field to another, in all respects other than a predominance of clay, or sand, or the like.

The "Scioto Valley lands" are often summoned as witnesses against the value of analysis. These soils are extremely fertile, and are apparently inexhaustible,—having yielded immense crops of corn for twenty years in succession; yet when analyzed, are found to be very similar in their constituents to comparatively sterile soils in Massachusetts:—the chief difference being the greater pulverulence of the Scioto soil, which is like to ashes for fineness of its particles.

Two neighbors—farmers—agreed to carry through the winter, as an experiment, a dozen head of cattle, each, on a given quantity of hay of similar quality. The one cut his hay fine, and fed out to his cattle regularly, as their wants required. These cattle thrived, and Spring found them sleek and hearty. Farmer Two turned out his herd to supply themselves, as best they could, from a well-settled old hay-stack. The hungry beasts gnawed at the stack steadily.

> "They fell upon whate'er was offered—like
> A priest, a shark, an alderman, a pike,"

at times getting their fill; and, at times, gaining new appetite from their exertions. These, also, survived the winter; but they were gaunt, hide bound, and wretched.

Farmer Two, of course, found fault with *the hay;* but we opine that the difference lay in the mode of feeding. And so we say of Scotia Valley lands. The soil is pulverulent—the food is chopped up—and always ready in the best state for the demands of the crop: While in Massachusetts, the tender rootlet is forced to contend for its food; now with a rock, and now with a little less hard-hearted lump of soil, that gives grudgingly, a only on compulsion.

We have now stated two—and these the most serious—of the objections taken to the value of Soil Analysis; and have given our "reasons for the faith that is in us," of its importance. To show its bearing upon farming operations would cumber this address, and consume more time than any of us would willingly now spare. Let it suffice, now, to say; that—its value conceded—it becomes the prime counsellor of the farmer in his plowing, and in his manuring; it tells whether or not, and in what way best, to disturb the sub-soil; whether its incorporation with the surface soil is desirable; what, if any, applications are needed to render innocuous, or even beneficial deleterious substances that may exist in the soil. The constituents of the desired crop being ascertained; it enables us to decide what alimen will be required, and to discover whether or not the food is in the soil, and in sufficient quantities; and if not, to supply it.

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ADVANTAGES OF CLUBS.

Prominent among the means of instruction are the Show and Reports of the County or State Society. Here are to be found, for comparison and competition, what the best farmers of the districts consider their best stock; here contend for precedence the most thorough plowmen, giving specimens of their work, by which all may judge of their claims, and many may learn for the first time, what is pronounced to be good plowing; here congregate the inquiring minds, and the men of experience—at this farmer's exchange; some one, supposed to possess ideas worth the hearing, has been selected to address the assembled multitude; the Transactions of the Society, when published, give forth the doings and the opinions of the most successful farmers, whereby others may profit. All these things go to form a school, whereat those who crave knowledge of their craft, may obtain it.

But it too often happens that preparation for the Annual Exhibition is put off until within a few weeks—and, frequently, a few days—of the Show. The full value of the fair will not be realized by Exhibitors and Competitors, nor will the greatest benefits accrue to spectators and students until the show, in the stead of being a scramble for premiums on chance-grown crops and haply-excellent animals; shall be an exposition, in the case of every exhibitor of the results of a twelvemonth's study, care and diligence. To effect this so desirable end, no instrumentality can excel the Farmer's Club. And of these, there should be one in every town,—every village—every neighborhood: alive and at work throughout the year drilling and instructing its members against the day of Annual parade.

The value of a club is not generally appreciated, or no town would long consent to be deprived of its influence. In the first place, at these conversational meetings, held once a week or twice a month, members become accustomed to speak in public, and to express their views with ease. Most men, without practice, are frightened at the sound of their own voices.—When they rise up on their feet to address an audience, the thoughts that filled their minds desert them. Almost every speaker will confess to a like experience. But, by degrees, one acquires a self-confidence, which enables him to feel as much at home on the floor and before an audience. as when seated in his own chimney-corner, detailing the events of the day to the good wife and children.

In the next place, these occasional meetings strengthen neighborly feeling. Farmers live an entirely too secluded life; they visit little among each other, and seldom stray far from home, except to the store for groceries, or to the town-house to vote. Consequently, they lose much of that enjoyment which society affords, and unsocial (not misanthropic) habits grow upon them. To go out to spend an evening with a neighbor is a matter for a month's discussion.—News travels slowly through an agricultural district: so does information. Farmers get behind the times. Now, for all these evils the Club offers a radical cure.

Thirdly, no American farmer can attend the meeting of a Club of his fellows, without receiving instruction. There is no one so well posted up in all that pertains to his profession, that his neighbors cannot enlighten him on some points, by the narration of their successes, or their failures; for a failure conveys as good a lesson, as the most complete success. Failures warn us from following example, as successes incite us to imitation. Then, again, one farmer may be an oracle on stock raising, another excels in tillage-crops, a third—(perhaps this third man may be a mechanic or a clergyman, who has joined the Club for the benefit of his garden-patch or glebe)—he is wise in horticultural lore. These three Yankees cannot long occupy the same room without a barter of their intellectual commodities. The parson has swapped away a remedy against peach-borers, for an idea about raising carrots; the stock-breeder has given his friends a cure for garget, or taught them how to pop-out "warbles;" in return for which he carries home a new wrinkle about orchard-management, or the most economical way of draining his low lands, &c. &c.

Fourthly, the Club induces men to study and to observe with nicety, that they may have something to add to the common fund, in return for what they have received therefrom. This is human nature—that is, the human nature of honorable men. We are not more willing that our comrades should teach us without return, than that they should feed or clothe us without pay. Then our pride spurs us on to show that we, too, have a contribution for the common stock, and if it does not happen to be on hand, we bestir ourselves to acquire it.

Fifthly, few enterprising men thus brought together once a week, or more or less often, to discuss a subject of common interest, will not long be contented with the narration of what they have done; they will cast about for new fields of exploration, or seek to enlarge the bounds of the old. Thus experiments will be suggested and agreed upon for a coming year; or a county fair will be proposed; or the foundation of other good works be firmly laid.

Sixthly, farmers seeing the results of combined effort, will be gradually led to value it, and to employ it in all matters interesting to them as a class. One, and the only reason why the farmers of America are without power, is because they have never learned to act in concert. Touch the tariff, and the whole manufacturing interest is in a ferment; meddle with the slavery question, and North and South buzz like bees and hornets; impose upon artizans, and every city swarms with remonstrating mechanics. But the farmers, though numerous, are divided and beaten in detail.

Seventhly, frequent meetings of farmers will have a tendency to wear away prejudices which now, as a class, they rather hug. He must be an unusually obstinate individual, who long resists evidence addressed to his ears and eyes, and arguments that appeal to his pocket.

Last to be mentioned, but not least to be preferred among the means of improvement, is the reading of agricultural books and journals. To little purpose have I talked, or have you listened to-day, my fellow farmers, if you are yet unconvinced that Agriculture is not only an Art, to be acquired by practice and observation; but as well a Science, to be mastered only by study and thought. Books and papers are the silent instructors for the fireside or the neighborly gathering. They contain the rich treasures of others' experience, collected in small compass from many and distant places—the tale of long years of toil, told on a single page. The farmer, who undervalues this cheap and easy mode of instruction, is no Solomon; and he who overlooks and neglects it, is far from being a sage. Show me the men, who sweep off your premiums, and nine out of ten of them, I venture to assert, are the reading and thinking farmers.—Show me the farmer, whose purse has grown weighty with coin—whose pocket-book is plethoric—to whom the rustling of bank notes is familiar music, and ten to one he is a reader and a thinker.

As is known to you all, the speaker is the the editor of an Agricultural paper; but if, as an editor, he must say that the farmers do not exert themselves as they ought to do—by procuring subscribers, and by communicating information—to sustain the Agricultural press; as a farmer he can add, with truth, that the poorest paper that is now in circulation, is worth to any farmer ten times its subscription price.—One single article may be, and often times is worth to a reader ten dollars; that is, he shall net this amount in a year by adopting a recommendation that he reads; yet we shall hear the same man grumbling, because every page is not filled with matter suited to his wishes. If farmers knew their best interest, they would give their hearty support to a half dozen Agricultural papers, and look upon it as their wisest investment.

COUNTRY GIRLS AND COUNTRY HOMES.

We welcome the following from our fair correspondent "C.," who twice before has graced our columns on The Use of Flowers and Flower Gardens. The present article will meet with general applause, and is clearly illustrative of the fact that the culinary art is not beneath the efforts of the best minds, while the important results to arise from its proper excercise renders it of the first importance.—[Ed.

Countrymen look to our homes, our country homes with country people and country fare for all the pleasures which the citizen seeks in public. We are dependent upon ourselves and families for the necessities and amusements of life; how few of us think to what degree for our health! How many of us rise in the morning, toil through the day, and retire at night, satisfied with a condition, constantly inferior to that for which, our natural endowments would have fitted us, and which we might have attained, had we known and observed in youth the laws of health! Experience stands empowered to assure me that we are not a sickly class; but there are unhealthy conditions, which, however hidden from our own discernment, are none the less real in their effects. We know that our fathers feed their farm stock with special food for special purposes; that cooked food is more nutritive than raw: and the same law holds good with the human system. Not a single article of food do we eat, but exerts our physical powers in greater or less degree in its appropriation. Each has its separate components, and undergoes decomposition at the expense of our animal powers in the process of digestion.—Thus one kind of food results in an increase of energy, another, of fat; others produce nervousness, debility, and the like.

It is not our purpose to enlarge on this topic strictly, but to suggest the importance of our selection of food, and of its preparation. To the latter more especially, we would call particular attention. During this era, when the importance of every duty is publicly considered, and the extent and usefulness of woman's sphere on every body's tongue, let us, for I too am a farmer's daughter, consider, at least, one branch of our duties, the too much neglected portion of housekeeping—if for no other purpose than to urge upon you, young lady readers of the *Working Farmer*, the importance of learning sufficient of Chemistry and Physiology to know the end of cooking, its best means and adaptation. A child is constantly ailing, a headache to-day, an earache to-morrow, catches diseases readily and subject to colds; how seldom does its mother trace these calamities to a general state of his system, induced and fostered by improper food which renders him liable even in his apparently well moments, to avail of any opportunity of receiving disease. Is there not much to be learned in the science of cookery?

Learn to make bread, girls, light, well-baked bread, with sufficient knowledge to have it always so; to know the causes of failures and their remedies; learn to boil vegetables and meats, so that they may be palateable and wholesome; learn to make pies with a well done and dry undercrust, and light pastry generally; learn to fry, that your food may be brown and not fat. These are all plain cooking, yet how often on your own tables are they neglected! To what unlimited extent is the health of yourself and others dependant on their observance!

An old adage for order runs: "A place for everything, and everything in its place." Let your adage be: "A rule for everything, and every thing by its rule." There is a superstition in Ireland of a fairy, who turns the bread, and brings bad luck. So there is among our country women, but his name is Guess. Never let your recipe say, *about* such a quantity, or a good sized lump. Let your quantity be definite, and the time for cooking each article be known, so that every thing may be well cooked by meal time. These are the duties of the practical cook it is true, but the wealthiest house keeper in the land may not despise their knowledge.—There is little security in depending on the caprice of each new domestic for the condition of our food. Is not its selection and preparation truly worthy of your attention, and the reason for the better process a science, inferior in practical worth to no other.

Would that the young ladies of our country felt its importance, so that in the next generation, if not in this, the results may be apparent. Never be satisfied with doing in this branch, but let your attainments be the best which your exertions will enable you to procure.

I deem it not out of place here to introduce an extract from Liebig's *Letters on Chemisty*, trusting it may be acceptable:

"The fibre of meat is, in its natural state, steeped in and surrounded by a liquid containing albumen; and the tender quality of boiled or roasted meat depends on the amount of the albumen depended in its substance, and there coagulating whereby the contraction, toughening, and hardening of the fibre is prevented. Meat it underdone or bloody when it has been heated throughout only to the temperature of coagulating albumen, or 133°; it is quite done, or cooked when it has been heated through its whole mass to between 158° and 165°, at which temperature the coloring matter of the blood coagulates.

From these considerations we may deduc certain conclusions, not without importance, fo the preparation of animal food; which, on account of the universal interest attaching t them, are perhaps worthy of being pointed out

"If the mass of flesh intended to be eaten b introduced into the boiler when the water is in state of brisk ebullition; if the boiling be kep up for a few minutes, and the pot then place in a warm place, so that the temperature of th water is kept at 158° to 165°, we have unite the conditions for giving to the flesh the qualities which best fit it for being eaten.

"When it is introduced into the boiling water, the albumen of the flesh is immediately congulated on the surface, and to a certain dept inwards, thus forming a skin or shell, which n longer permits the juice of the meat to flow out nor the water to penetrate into the mass. Th flesh continues juicy, and as well-flavored as i can possibly become. The greater part of th savory constituents is retained in the meat.

"On the other hand, if the mass of flesh b set on the fire with cold water, and this slowl heated to boiling, the flesh undergoes a loss o soluble and savory matters, while the soup becomes richer in these. The albumen is gradually dissolved from the surface to the centre; the fibre loses, more or less its quality of shortness or tenderness, and becomes hard and tough.—The thinner the piece of flesh is, the greater is its loss of savory constituents.

"This explains the well-known observation, that that mode of boiling which yields the best soup, gives the driest, toughest, and most vapid meat; and that, in order to attain well-flavored and eatable meat, we must relinquish the idea of making good soup from it.

"If finely-chopped flesh be slowly heated to boiling with an equal weight of water, kept boiling for a few minutes, and then strained and pressed, we obtain the very strongest and best lavored soup which can be made from flesh.—When the boiling is longer continued, some ittle additional organic matter is dissolved, but he flavor and other properties of the soup are, hereby in no degree increased or improved.—By the action of heat on the fibres, a certain mount of water or juice is always expelled from hem; whence it happens that the flesh loses weight by boiling, even when immersed in water (as much as 15 per cent. of the weight of the raw flesh.) In larger masses this loss is not so great.

"Even in roasting meat, the heat must be strongest at first, and it may then be much reduced. The juice which, as in boiling, flows out, evaporates, in careful roasting on the surface of the meat, and gives to it the dark brown color, the lustre, and the strong aromatic taste of roast meat."

Another fact may not be unacceptable at this time, that is, that leguminous vegetables will not cook well with salt; thus beans and peas should never boil with salt meats to be well cooked, but have the liquor added, in making soups, after they are done, and if cooked plain, the salt added then. So general rules might be mentioned to an unlimited extent, drawn from the source of Chemistry alone; but I have hope that these will at least suffice to show the truth of my remarks. We country girls should be unwilling that our tables should be set with coarser and worse cooked food, as they proverbially are, than those in town, when we have the advantage of abundant and fresh vegetables and fruit, and the pure fresh country air to give us energy. We have heads and advantages to earn a different reputation. C.

From the Soil of the South.

MAKING MANURE.

Messrs. Editors: In your Journal, (the Soil of the South,) I have seen various articles from time to time on the subject of the improvement of our worn lands, and the great importance of keeping up the fertility of our fresher lands.—By those articles we were persuaded of the necessity of such a course, but there they invariably stopped, without giving us the modus operandi by which so desirable a result might be accomplished. They say manure—manure. I admit manure is good and pays well, but what I have been anxiously looking for in your pages, I have not seen as yet, viz: a treatise on making manure, giving in detail the best mode of making the greatest quantity that will pay the trouble of making, hauling out and spreading on the land. The usual mode of making manure through the country as far as I have been able to observe, is simply to have a mule lot with a shed in it barely sufficient to shelter the stock from rain, and a cow lot, with rarely ever a shed in it. Such is the fixtures for manure making generally, if manure it can be called.

For my part, I hardly think it deserves the name, for having been exposed in the open lot the greater portion of the year to the evaporating influences of the sun and the leechings of the rains, it is scarcely anything but the rotted pine straw yet; all of the most valuable portions of the droppings of the stock have either been evaporated by the sun or leeched out by the rain; many in this vicinity make largely of it, others have ceased to make it, believing it does not pay. As for my part, I would rather have it than none, although it scarcely pays for itself, but by adding ten bushels of cotton seed to a four horse load of it, and spreading it on an acre of ground, it will make you from one hundred and fifty to seventy-five pounds of cotton to the acre more than it would have made without, and by continuing it on land, it will not deteriorate from cultivation, but will slightly improve. Such has been the result with a field I have had in cultivation for the last five years.

Not being a chemist, I do not know what portion of the fertilizing properties of manure made as above mentioned, is lost from the effects of the sun and rain, but believe it cannot be less than three-fourths and probably much more. This opinion may startle some and be laughed at by others; but judging as I have, through observation alone, I am constrained to believe it. I made such several years of my life, and if you think my estimate is too high, try the experiment. Take one load of manure from under a shed where it has not been exposed to the sun or rain, and put it on an acre of ground, and then put four loads that has been subjected to the influence of the sun and rain on an acre by the side of the other, and you will find that the acre with one load on it, will show the effects of the manure most, and yield the most in the end. Were the yields the same, it would be economy to make manure under the shelter, as it is just as much work to haul out and spread a load of sorry manure as a load of good manure. We not only want the best manure we can make, but economy suggests that we adopt a plan by which we may be enabled to save the evaporation and leechings of our manure yards, though we should make less in bulk; but let it be twice, aye, thrice as much in fertilizing properties, the next question is how are we to gain that point? I answer, by sheltering our manure yards at least half, and reducing them in many instances, to less than half their size. I believe in the benefits to be derived from a shed, so strong, that I have constructed one, the body of which is twenty-four by forty feet, and a four foot story on it. The floor is eight feet from the ground and a large door in each end. It also has sheds on each side, eighteen feet wide, making in all forty by sixty feet, under shelter, for the benefit of making manure, and the body, a half story, forty by twenty-four, will hold my entire crop of fodder. My lot is enclosed with a plank fence, and is one hundred feet long, by sixty wide; the posts of the shed being posts for the fence also; the eves extending on each side over the fence, thereby running the water out of the lot from the entire roofs. My plan for making manure in it is as follows: In the first instance, cover all over a foot deep in straw, in the course of two or three months thereafter regularly, rake up that which is not under the shelter, and put it under at a regular thickness, and fill up the open yard again with fresh straw; by spring, I expect to have my manure from two to three feet under the shelter, a load of which I think, will be worth as much as four of what I have made heretofore. I have usually succeeded in making manure enough, with the addition of my cotton seed, to manure ten acres of cotton to the hand, which I follow the next year, with corn without manure. The balance of my cotton land I shall plant hereafter, one year in peas and one in cotton, plowing the peas under always in the fall. I have my first crop of peas to plow in this fall—as to how much the peas will be worth as a manure for cotton, as yet I have no experience, but I think they are worth a trial.

Having spun this article out much longer than I expected, I will close. I do not offer this to the public as deserving any merit; but that it may induce others to give their views on the improvement of lands and of making manures.

H.

Houston Co., Ga., Aug., 1854.

A TOUCHING INCIDENT.

"Give us this day our daily bread."

The editor of the Musical World narrates the following strange incident which happened while he was living in Germany. In the neighborhood of Vienna, there dwelt a young peasant woman, who supported herself by the cultivation of vegetables, which she disposed of in the Vienna market. She inhabited a small house, attached to which was her vegetable garden. Young as she was she had been married; but her husband had died, leaving her a little girl, who was just old enough to run about and play with other children in the neighborhood. The mother was still handsome, and desirous of a second marriage. About this time, there was visiting her a young man for whom she had conceived an affection, and whose proposition of marriage she was now beginning impatiently to await. But no proposal was made. A dark thought finally crossed the young woman's mind that there must be some obstacle in the way, and that this was, in all probability, the child. An unnatural struggle of jealousy took place, which resulted in a fearful determination—she would make away with the child. Beneath her house was a deep cellar, where she occasionally stored her vegetables. Taking her child by the hand one day, she led it down stairs, and, thrusting it inside, closed the door, locked it, and hurried up stairs. The same evening her lover came; they sat, chatted together, but no mention was made of the little absentee.

The next day, after a desertion of twenty-four hours, the mother went softly down and listened at the door. The quick ear of the child caught her mother's step, and she implored her to take her out of the dark place—she was so cold and very hungry. No answer was returned, and the mother crept quietly up stairs. In the morning the lover came again. They took supper together, and passed a social evening. After the second twenty-four hours had passed, the mother made another visit to the child.—Again the little sufferer heard her, and with feeble voice begged for a crust of bread—only one crust of bread. This pulled a little upon the mother's heart, but her purpose was fixed.

Another day passed. The mother went quietly down stairs and listened. All was silent.—She softly opened the door—the child lay dead. Taking the body swiftly up stairs, she laid it upon a bed; and immediately making a great outcry, called the neighbors together, telling them that her child had suddenly died. And so it seemed. The day after there was a funeral. The child was lying in the coffin, strewn with flowers, brought by the little playmates in the neighborhood, who had come to attend the funeral of their lost favorite.

The procession moved towards the quiet *Gottesacker*, (God's acre,) where was to be planted this little seed of an immortal flower. A clergyman was in attendance. The mother stood looking down upon the grave, over which the holy man was repeating with solemn voice—"Our Father who art in heaven, hallowed be thy name; thy kingdom come; thy will be done on earth as it is in Heaven. *Give us this day our daily bread*—" A piercing shriek, and the mother fell with a groan to the earth. Looking wildly around her, she then, in gibbering accents, related to the shuddering throng at the grave, the very deed her own hands had committed. She lived not long after. Crazed and smitten by the hand of God, she miserably died—a signal instance of retribution, and a startling lesson upon the words *Give us this day our daily bread.*

PORK AS FOOD.

In giving our views of the proper mode of fattening calves and on animals, on page 111, we have introduced some suggestions in reference to pork, and other excessively fat meats. Since that paper was given to the printer, we have received a copy of the Boston Medical and Surgical Journal, which contains a striking confirmation of our views, chiefly experimental, and worthy of more consideration than many people, perhaps, will be inclined to give it. We only add here, that the mere fact that any article has been used as food for many years and even to old age, comes far short of demonstration on this point, so long as so many diseases abound in persons of all ages and both sexes.

"For many years past (says that journal.) the Shakers of Massachusetts and perhaps those of other States, have wholly abandoned swine-raising, although an acknowledged source of profit to farmers like themselves. Some very wise men may be found among those excellent agricultural broadbrims, who, on many subjects, supposed to require the exercise of very elevated intellectual endowments, exhibit powers and acquirements which would command respect in any society. They make no display of their knowledge beyond turning it to a practical account on their own industrial territories. In medicine there are individuals among them who are vigilant students, and prescribe, when occasion requires, with a clear understanding of the symptoms and the value of the medicines they may give. Their village health is proverbial. They seem scarcely liable to the prevailing maladies in their vicinity. * * * * Pork is not eaten by them, because they find satisfactory evidence that the flesh of domesticated swine is more or less diseased.

"Again, a prominent Shaker recently stated to the editor of that journal "that the children in his community never had measles, and stranger still, they could not take the disorder." A few weeks since, an experiment was instituted which confirmed the truth of this alleged immunity. In order that the disease might be contracted by their children while young, upon the supposition that they were destined, of course, to undergo that specific suffering, as others did, they were sent to see some children "among the world's folks" who were then sick with measles. But the little Shakers did not imbibe the sickness, having remained perfectly well ever since. The reason given by the Shakers themselves, why their children did not contract *rubeola* in this case, and why they are not liable to its invasion, is, that they have never eaten pork. Whether this be the only cause, or whether it be the effect of the general hygienic regulations of their community, we will not undertake to decide, but leave the subject for the consideration of others."

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KILLING LICE ON CATTLE.

Our readers will remember that a week or two ago, in answer to queries respecting the best mode of killing vermin on cattle, we recommended tobacco smoke in preference to any thing else. We have known an infusion of tobacco, (tobacco tea,) to kill cattle and calves when put on strong, but in conversation with our neighbor Moses Hanson, he informs us that he used it during the past winter on his cattle with perfect safety and success. His mode of using it was as follows: Finding that his cattle had become infested with lice, he took tobacco and steeped it in water, using the proportion of one "fig" to two quarts of water. This he applied while moderately warm, and after having washed the creature with it, he took the card and carded it over, thus working the moisture into the hair, and on to the skin more thoroughly. No bad symptoms were discovered in the animal, but the lice were all killed. In a short time it was found that new broods had hatched out from the nits, and another washing became necessary. By repeating these washings, his cattle were completely rid of lice, without any deleterious effect upon the cattle, in consequence of using the tobacco in the form of a wash.

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Following the Leader.—A letter writer, who sends jottings forth from Cincinnati, tells the following story as one that accually occurred in that city: "A very amusing incident occurred on Walnut street the other day, illustrative of the natural instinct of one sheep to follow another. A small drove was coming up the street, and when they arrived opposite the Gibson House the foremost made a rush to go into an alley, but a man suddenly coming out, somewhat frightened the sheep, and it deviating slightly from the true course, darted into a fancy lamp store followed by the whole flock. The crowd, eager to witness the sport, instantly blockaded the door, so that there was no mode of egress for the unceremonious visitors, and as said lamp store was too contracted to suit their peculiar notions, and wishing to regain their liberty as speedily as possible, they saw no other means of escape but through the window.—One of them made a break, and leaped clear through the show-window upon the pavement, demolishing in its progress, glass-ware, china, &c. with an alacrity truly praise-worthy. The crowd immediately fell back from the door, and allowed a free passage, *but every sheep jumped through that hole in the window.*"

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Young America.—"My son," said a doting father, who was about taking his son into business, "What shall be the style of the new firm?" "Well, governor," said the one-and-twenty youth, looking up in the heavens to find an answer, "I don't know; but suppose we have it John H. Samplin and Father." The old gentleman was struck with the originality of the idea, but could not adopt it.

State Agricultural Fairs.—We give below a table showing the date of the commencement and close, and the places of holding the State Agricultural Fairs in the various States of the Union and in Canada:

Name.	*Where held.*	*Date.*
Illinois,	Springfield,	Sept. 12—15
Kentucky,	Lexington,	Sept. 12—15
Lower Canada,	Quebec,	Sept. 12—16
Vermont,	Brattleborough,	Sept. 13—15
Ohio,	Newark,	Sept. 16—22
Michigan,	Detroit,	Sept. 26—29
Pennsylvania,	Philadelphia,	Sept. 26—30
Missouri,	Boonville,	Oct. 2— 6
New York,	New York,	Oct. 3— 6
New Hampshire,	———	Oct. 3— 6
Maryland,	Baltimore,	Oct. 3— 6
Indiana,	Madison,	Oct. 4— 7
Wisconsin,	Watertown,	Oct. 4 7
Connecticut,	New Haven,	Oct. 10—13
North Carolina,	Raleigh,	Oct. 17—20
Georgia,	Augusta,	Oct. 23—26
Iowa,	Fairfield,	Oct.
Nat'al cattle Show,	Springfield, Ohio,	Oct. 25—27

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The Wrong Horse.—An Irish girl residing with a family near this city, was ordered to hang the wash clothes on the horse in the kitchen to dry. Her mistress shortly after, found a very gentle family horse standing in the kitchen completely covered with the different articles that had been washed that day. Upon interrogating, the reply was, "Och to be sure, ye told me to hang the clothes upon the horse in the kitchen, and the baste is the kindest I ever saw, shure."

Dr. M'Lane's Liver Pills.—This great medicine has supplanted all others for the cure of diseases of the Liver Its effects are so salutary and speedy, and at the same time so perfectly safe, that it is not surprising it should supercede all others. Invented by a very distinguished physician of Virginia, who practiced in a region of country in which Hepatis, or Liver Complaint, is peculiarly formidable and common, and who had spent years in discovering the ingredients and proportioning their quantities, these Pills are peculiarly adapted to every form of the disease, and never fail to alleviate the most obstinate cases of that terrible complaint. They have justly become celebrated; and the researches of Dr. M'Lane have placed his name among the benefactors of mankind No one having symptoms of this formidable complaint, should be without these invaluable Pills. Have you a pain in the right side, under the edge of the ribs, which increased with pressure—unable to lie with ease on the left side—with occasional, sometimes constant, pain under the shoulder-blade, frequently extending to the top of the shoulder!—Rely upon it, that although the latter pains are sometimes taken for rheumatic, they all arise from disease of the Liver; and if you would have relief, go instantly and buy a box of Dr. M'Lane's Liver Pills.

Purchasers will be careful to ask for Dr. M'Lane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. M'Lane's Liver Pills, also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

Oct. 3d, 1854.

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Medical Testimony Cannot be Controverted.—One of the most startling cases is narrated of Dr. McLane's Vermifuge by Dr. John Butler, of Lowell, Trumbull Co., Ohio. The case was that of a young lady who had been very sick for eight years, and had consulted a number of physicians, who had treated it as one of Prolapsus Uteri. Dr. Butler was then called in, and for a time believed with his predecessors that it was a case of prolapsus. He was, however, soon forced to the conclusion that his patient was suffering from worms, and after much persuasion, prevailed upon her to take two doses of Dr. M'Lane's Vermifuge. This medicine had the effect of removing from her a countless number of the largest size. After she passed them, her health immediately returned. She is since married, and continues to enjoy excellent health.

☞Purchasers will be careful to ask for Dr. M'Lane's Celebrated Vermifuge. and take none else. All other Vermifuge, in comparison, are worthless. Dr. M'Lane's genuine Vermifuge, also his Celebrated Liver Pills, can now be had at all respectable Drug Stores in the United States and Canada. For sale by,

2w. P. F. PESCUD, Raleigh.

A DESIRABLE RESIDENCE FOR SALE.—The subscriber offers for sale her place of residence in Wake Co., N. C., situated Five miles west of Raleigh, immediately on the Central Railroad. The dwelling is a very large and convenient one, handsomely situated.—The out-houses are good, consisting of the Printing Office buildings, Kitchen, Ice-house, Barn, Stables, &c., &c.—There is a well of excellent water, with a chain pump. Also a great variety of Fruit trees, Grape Vines, &c., &c.

The Tract of Land contains 130 acres, 60 acres of which is cleared and susceptible of a high state of improvement: some 20 acres being good meadow land. Other land, if wanted, may be purchased, adjoining.

In consideration of its healthful and convenient location, and many valuable improvements, it is in every respect desirable as a place of residence.

Any persons wishing to purchase are invited to call and examine the premises for themselves at as early a day as practicable.
G. MEREDITH.
October, 1854. 7—tf.

SAMUEL R BORUM HENRY W. FISHER.

FARMER'S HEAD QUARTERS.

BORUM & FISHER, DEALERS IN BAR AND Bundle Iron of every description, for Farming and Manufacturing purposes. Horse Shoes, Nail Rods, Cut and Wrought Nails and Spikes, &c. Manufacturers of Agricultural Implements and Farming Tools generally, Horse Powers. Threshing Machines, Bamborough's and other celebrated Wheat and Corn Fans, always on hand. Also, Fresh Garden and Field Seeds. Our Catalogue and Almanac is published the first of each year, and may be had gratis, at our New Agricultural and Iron Depot and Seed Store, 11. Water Street, Norfolk, Va.

NORTH CAROLINA INSTITUTION FOR THE *Deaf and Dumb and the Blind.*—The Sessions of this Institution will hereafter commence on the First day of September of each year, and continue ten months.

This change has been made in order to bring the vacations into the months of July and August, which, on account of the heat of that season, are less adapted to study than the other months. It also brings the Commencement of the School to the season when the Sheriffs of the different counties are coming in to make their returns, thus affording a good opportunity for parents to send their children.

The following are the Officers in the Intellectual Department of this Institution.

WM D. COOKE, M. A., PRINCIPAL.

J. A. WADDELL, M. D., Rev. H. HARDIE, GEO. E. KETCHAM, CHARLES M. GROW.	Professors and Teachers.

☞ Applications for admission should be made to the Principal.

Raleigh, August 14, 1854 tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annum, in advance six copies for $5; twelve copies for $10; thirty copies for $20.

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JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

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JOHN F. TOMPKINS, M. D.

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November, 1853. 8—

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March 30th, 1854. 2—tf.

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THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity, from one Bag to any number of Tons. Price, when one ton and over is taken, $45,00 per 2,000 lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

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VOL. 3. RALEIGH, N. C., NOVEMBER, 1854. NO. 8.

JOHN F. TOMPKINS, M. D., Editor. Wm. D. COOKE & Co., Proprietors.

AN ADDRESS

DELIVERED BEFORE THE

N. C. STATE AGRICULTURAL SOCIETY,

BY HON. KENNETH RAYNER,

OF HERTFORD,

At the Second Annual Fair of the Society, Thursday, October 19th, 1854.

Mr. President and Gentlemen, of the North Carolina State Agricultural Society:

I congratulate you on the favorable auspices under which we are assembled, and on the stirring and gladdening scene this day exhibited. It is a scene well calculated to awaken emotions of joyous pride for the present, and cheering hopes for the future, in the bosom of every patriotic son of the good OLD NORTH STATE. The promise held out by our last Fair, on this same spot—our then first essay in an untried field—has been more than fulfilled. The seeds of industry, enterprise, and State pride, then sown, happened to fall on fruitful soil; and by a diligent cultivation, have already ripened into a rich and abundant harvest.

What spectacle is better calculated to call into active play all the nobler and more generous impulses of our nature, than a scene like this? Whilst in our own country, the elements of political discord are in agitation throughout the borders of other States—whilst on two Continents of the old world, opposing hosts are confronting each other ready for the work of slaughter—here, we meet together as friends and fellow-countrymen, for the purpose of making our common offerings around the altar of Concord, and of celebrating the achievements of the pursuits of peace. A calm survey of this living and moving panorama, is well calculated to superinduce reflections of a moral as well as practical character—to stir up associations connected with our past history and future destiny. Centuries in the history of nations, and the progress of peoples are but as days in the lives of individuals. Carry your minds but two short centuries back and contrast in imagination, the scene then presented on this spot, with that which now greets our vision. The solitude of nature was then undisturbed by any sounds, but the hum of the breeze amid the boughs of primeval forests; whilst now, the joyous greetings and gratulations of thousands of freemen, attest the presence of Christian civilization. *Then*, the wild and tameless beasts of the wilderness, sought their lairs or crept stealthily to their prey—where are now standing in the stalls, improved specimens of those noble domestic animals, whose usefulness ministers to human wants, and whose docility exacts the tribute of human kindness. *Then*, the surface of the earth prese an unbroken mould, the vegetable deposite of ages—where *now*, varied implements of husbandry attest the efforts of human ingenuity for penetrating deeply the bosom of the earth. *Then*, where from the council-fire proceeded the only conservative element of authority, known to the government of the red man—*now* proudly towers within our vision an edifice, erected by freemen for the government of themselves. *Now*, stand in sight, temples vocal with praise to the great Dispenser of these manifold blessings—where *then*, amid the silence of solitude, the commotion of the elements alone proclaimed his majesty and power.

What has effected this mighty, this wonderful change? The avocation of nineteen twentieths of this vast assemblage readily answers the question. This great change has been wrought by agricultural enterprise and the mechanic arts—those concomitants of civilization; which it is the object of our association to honor, encourage, and promote.

Nothing has been more clearly demonstrated by the history of the human race, than that man's natural state is the social state. This law of his being adheres to him in all the varied relations of his existence. It is the source of his strength and power. And it is remarkable that that animal the highest in the scale of finite being, endowed with the highest intelligence, made in God's own likeness, second only to the angels—should be the most dependent on his kind, for exertion, for strength and happiness. This is the law of his being, no matter what may be the phase of civilization under which he lives. Man has never yet been found, in so degraded a condition, as to be able to dispense with it. The roving Indian, the Fee-Jee cannibal, the Papuan of New-Guinea, the Bushman of South Africa, are as subject to this decree of nature as the most elevated type of the Caucasian race. This tendency of man to the social state, is the origin of government itself. The protection of the weak against the strong, and the security to the ingenious and industrious, of the rewards of their labor, against violence and oppression, first led man to seek for safety in association—the theory of the social contract being, that what man consented to voluntarily, was afterwards enforced through constraint, by the depositaries of power. Happiness, as well as security, is another leading object of the social state. The private relations of life also appertain to the developments of social life. The relations of parent and child, husband and wife, the great sources of man's temporal happiness, around which cluster so many hallowed associations and tender sentiments, have their origin in the principle of association and mutual dependence. The discharge of the duties which man owes to his God, in all highly civilized states pertain to his social as well as his individual character. The early founders of the Christian Church, availed themselves of the social tendency of man, in organizing a pure worship, and in disseminating a pure faith. It was on the principle of association—by the organization of social communities, recognizing correlative duties, benefits and burdens among their several members, that the Christian Church was planted. The cloister of the monk and the cell of the anchorite, is as much a perversion of man's religions, as the cave of the hermit, is of his social nature.

This principle of association is the great element, not only of man's security and happiness; but of his strength and power in the diffusion of knowledge, and in subduing and controlling the physical world. It is the striking feature in the rapid and unprecedented progress of the civilization of this age. The fable of the dying man, who presented to his sons a *bundle* of rods, which when kept bound together, their united strength could not break, but which when separated, each one could easily snap to pieces, contains the true philosophy of associated effort. It is associated wealth and enterprise, fostered and encouraged by government, that have elevated England to her proud and lofty position. It is this which has subdued an empire of more than a hundred million of souls in India, to her control—which has covered the ocean with her commence—enabled her manufacturers to furnish the world—dug her canals—covered her surface with a net-work of railroads—and sent her missionaries into heathen lands upon the errand of peace and glad-tidings. Association has been equally potent in the advancement of science. Her Royal societies, for the promotion of science, by combining and concentrating the contributions of her wise men and philosophers, have done more during the present century, than the scattered and isolated efforts of individuals for ten centuries preceding; in unfolding the arcana of nature, exposing error and establishing data, as a stand-point, from which genius and labor promise to achieve discovery, invention and knowledge still more startling, before the century shall expire. Her "Society for the diffusion of useful knowledge," has done more, in the last quarter of a century, to diffuse intelligence among the masses, and to elevate them in the social scale, than all the patronage of men of letters, by the wealthy and the great, since "the revival of learning." It is this element of association, which has placed France at the head of christendom, in the abstract sciences. Her "Academy of Sciences," has continued to exist and flourish, through all the mutations of her government, fostered, honored, and encouraged by the "powers that be!" It operates as a great laboratory, through which the lucubrations of her greatest minds are submitted to the closest analysis, that the useful and the true may be eliminated for the benefit of mankind.—The eclective character of the moral philosophy of the age is founded on this principle of association—that moral truth is not to be found in any isolated system of any individual mind; but by a combination of whatever, from all systems, experience has proven to be true in the past, awaiting the progress of events for the elucidation of other truths, as time rolls on.

In the application of science to the useful arts and the pursuits of life, association has achieved far more wonderful results in our own country, than in either England or France—the two most powerful and highly civilized States of European Christendom. The embarcation on the May-flower, and the planting our infant colonies, had their origin in voluntary association. Combination of individual resources for the common good, effected what separate and detached exertions, without concentration, was too feeble to accomplish. It was by association and concert, that the early settlers were protected against the tomahawk of the savage, by which our great battle of freedom was fought and won, by which our free institutions were founded. It is association that has subdued a forest continent—tunneled our rugged mountains—spanned our rushing rivers—bound us together by 13,000 miles of railroad—covered New England with workshops—disemboweled the earth of her mineral treasures—whiteened the waters of every sea with our commerce—covered our coasts and inland streams with floating palaces—and taught the lightning to speak in a language, the echoes of which reverberate in a moment from one extremity of the continent to the other. It his been no less efficient in ministering to our moral than our physical wants. It has filled our libraries with the lore of ages—founded our colleges and institutions of learning—pointed the spires of our churches heavenward—and sent the gospel to the heathen of every land. The secret of this mighty power of association is, that it teaches man the dignity and ulevation of his nature—that his high mission is not to labor for himself alone—that he owes something to his fellows, in his day and generation. It appeals to the pride, the patriotism, the benevolence of each, to contribute a portion of time, his talents, and his means, to the advancement and prosperity of his fellowmen. It gives combined power to individual effort, it unites the experience and knowledge of individuals, for the common good of the whole, it creates an identity of interest and harmony of action. It offers a stimulus for renewed enterprise and industry; by the attrition of mind brightens the intellect; and by an interchange of ideas and individual experience, it enlarges the field of operation, for the development of the means of human enjoyment and the elevation of human character.

But much as associated effort has achieved in our country, its task is just begun. Ours being a government, which, owing to its peculiar structure, renders the direct patronage and supervision of the objects of improvement in science, art, and industrial enterprise a matter of questionable—or perhaps, I ought rather to say, of *questioned*—policy ; the greater is the responsibility resting on the citizen, the stronger the appeal to his benevolence and pride, to contribute his quota of influence, energy and wealth, in the advancement of any great movement, which promises to elevate the character of his country, or to enhance the prosperity and happiness of his fellow men. Ours also being a government, which recognises perfect equality, both social and polical, among all classes—in which all are entitled to equal benefits under it, and subject to equal burdens in supporting it—there is no country, where associated enterprise, promises so much harmony and concert to all; where there is such a close identity of interests, where the call upon every one is so loud, to aid in removing those obstacles to progress and improvement, which obstruct the prosperity of all alike ; and to diffuse blessings which must equally enure in common to all.

Among the great improvements on which the associated intellect and enterprise of the civilized world is now engaged ; agriculture and its hand-maid, the mechanic arts, so far as their objects and results are concerned, may be said to stand at the head. To advance and honor these great elements of national greatness, and human happiness, is the object of our association. For this we are assembled—and in the remarks I have made in reference to the nature and objects of associated effort, my purpose has been to show, that it is no mere holiday sport—no mere idle amusement, in which we are now engaged. 'Tis true, the occasion is well calculated to elicit the most exuberant feelings, the most pleasant hilarity, the most enticing amusement. But these are not the main primary objects of our association. They are flowers to be culled by the way side along our journey—but one ultimate aim is the advancement of our country's prosperity and power, the welfare and happiness of human kind. There is a deep philosophy in our aims. We are competitors in the great race in which the intellect and industry of the world are engaged ; in endeavoring to eliminate a still higher type of civilization, from the impulses and tendencies of the age, for those who are to come after us.

These annual Fairs and festivals, in honor of, and for the purpose of promoting agriculture and mechanical industry, though of but late origin, are destined to stamp the impress of their influence upon, and to mark an epoch in the history of, the moral, social, and political character of the age, more especially in this country. Their peculiar recommendation is, that they combine the useful with the agreeable. They impart instruction to the mind, whilst at the same time they minister to our pleasure, curiosity, and hilarity through an innocent gratification of the senses.—But their chief excellence consists in exciting and stimulating, the nobler sentiments of our nature. They produce combination of mental effort upon a given subject ; and by an interchange of opinion and experience, they make available for the common good. the combined result of whatever may be useful and expedient in individual enterprise and ingenuity, in every portion of the land. They serve to impart most valuable information, in reference to the resources, productions, and industrial pursuits of different sections and localities—information so very indispensable to the political economist, the legislator, and historian—in the absence of statistical Bureaus, in which our country is lamentably deficient. It is hardly necessary to say, that they unburden the bosom of care, refresh the energies of our nature, and give us a relish for the manly, yet innocent amusements, which experience has proven to be necessary for the full development of man's noblest faculties. They exemplify the philosophy of Æsop, in his fable of the unbent bow—that, by occasional relaxation from the laborous duties of life, we are the better enabled to discharge those duties, when the hour of labor comes. The joyous greetings and radiant countenances of the thousands who surround me—honored as we are, with the presence of the fair wives and daughters of the land, whose presence ever bespeaks a tribute to the refining and ennobling feelings of the heart—proclaim in language far more eloquent than any I can use, that the present is not only a "feast of reason," but also a "flow of soul." What is better calculated to minister to a laudable curiosity, than an inspection of these implements of labor saving machinery, by which man has harnessed the very forces of nature, and made them obedient to his will? What is better calculated to excite emotions of high intellectual enjoyment, and to identify in the mind of the beholder the farmer's home with calm contentment and comfort and pleasure, than the sight of those noble and highly improved animals in their stalls—whose beauty of form and docility of disposition are almost enough to make us converts to the doctrine of the author of "The vestiges of creation," that every type of animal existence is the development of one still lower, produced by some fortuitous combination of elements in the great laboratory of nature.

But it is upon the moral and social relations of our people, that these Fairs, devoted to Agriculture and Mechanical industry, are calculated to exercise the most important influence. They bring us together, make us acquainted with each others' advantages, wants, pursuits and feelings. They not only serve to convince us, that individual man is dependant on his kind for happiness—but that sections and localities, though diversified in pursuits and resources, are to a certain extent, dependent on each other, and identified in interest. A common bond of union is thus secured—a bond of union, stronger than one of statutes or parchments, because it is founded in kindness, good will, and affection; strengthened by associations of common pleasure and enjoyment, and annually renewed amid the greetings and congratulations of joy and gladness. What is better calculated to counteract selfishness, that great bane of the human heart, and to excite feelings of a generous benevolence, than this annual pilgrimage to our great festival; when every one comes prepared to contribute his offering of the fruits of his industry and experience, and to carry back in return the accumulated treasures of information and experience, contributed by all? What better calculated to do away with individual conceit and stubborn perseverance in error in all industrial pursuit; and to elicit respect and consideration for whatever is useful and good in others; than the evidence here afforded, of how puny is each one's strength and wisdom, in comparison of those of the great whole; and of the opportunity here tendered of appropriating to his own use, the improvements and discoveries of the world around him? What is better designed to stimulate a laudable ambition to excel in industrial pursuits, than an exhibition of what others under no more favorable circumstances have achieved, by industry, care, labor, economy?—What is better designed to foster a noble and praise-worthy pride in the avocations of the farm or the workshop, than the tribute of praise and admiration, for the products of their labor, by friends and fellow countrymen—and the premiums awarded for the same? These premiums and diplomas are trophies of victory, won in the pursuits of peace, which are not to be estimated by dollars and cents, for money cannot buy them; but title papers of usefulness and worth, in their day and generation, which their owners should preserve, and transmit as heir-looms to their children.

One of the happiest results, to be produced by these associations is the social revolution to be effected by the high position to which *labor* is to be elevated; by investing it in the public mind, with that dignity to which it is justly entitled. So stubborn is the prejudice of habit, so hard is it to efface the associations of past history, that for centuries, manual labor has been identified with degradation and vulgarity. In the military governments that were established, from the very necessities of the times, or the ruins of the Roman Empire, and out of which originated the Feudal system, war was the great occupation of christendom. Out of the Church, mind was directed to its successful pursuit, either for conquest or defence. It was the only passport to honor and power, the only road to respectability. For several centuries, what are now known as "the learned professions," occupied an humble position in the social scale. Law, medicine and divinity were the targets at which literary humor and baronial merriment vented their jibes and sarcasms. The leech, the attorney and the priest, were associated with conceit, cunning, penuriousness, and the gratification of sensual appetites in well stored larders and well filled cellars.—Merchandise was regarded as the calling of the ignoble and avaricious. And, although, in process of time, these pursuits rose in dignity and importance; when violence yielded to law; when owing to a progressive civilization, the saving of life was regarded as more useful than destroying it; when the dissemination of a purer faith extorted the tribute of respect for its teachers; when the acquisition of wealth placed the means of luxury and enjoyment within the reach of its possessors—still, mere manual *labor*, honest, unpretending labor, agricultural and mechanical labor, has continued to languish in obscurity—the bye-word of the fashionable and the idle—the scorn of the purse-proud and pretentious. But in this respect, a new æra is beginning to dawn upon the world. The last quarter of a century has done more to revolutionize public sentiment on this subject, than the eighteen centuries preceding, since the commencement of the christian æra. The diffusion of intelligence, the operations of commerce, and the utilitarian tendency of the age, are beginning to teach mankind that labor is the source of all wealth and prosperity, the means of individual comfort and luxury, the basis of national strength and greatness. When we reflect that the object of our association is to enlarge the field of operation for labor, to secure to labor the rewards of its toil, to stimulate it to still greater exertions, and to enable it to accomplish the greatest results by economising its powers; it is evident that the effect must be to dignify, honor and elevate labor. It is the laborer, especially, that we invite and welcome to our brotherhood. In our own country, above all others, labor must be destined soonest to reach its proper position. Our institutions recognise no distinctions in industrial pursuits. The road to honor, to wealth and to power are open to all alike. The framers of our institutions were true to the teachings of a past history. Not only the soldiers who fought our revolutionary battles, but many of their heroic leaders were laboring men, artizans, and mechanics. Washington was a land-surveyor, Greene was a blacksmith, Wayne was a laboring farmer, Morgan was a waggon-driver. Our government, then, in its organic structure, has done for labor all it could. It is for voluntary association, then, to elevate labor in the social scale. I am pandering to no spirit of political socialism when I say that I have long thought society needed a radical reformation in regard to the estimate placed on labor. Why should the laboring man be excluded from the saloons of fashion, the hospitable board of the wealthy, the companionship of the great—I mean merely *because* he is a laboring man? Why is it that the young man who returns home from College with an education secured by the economical savings of an industrious father, thinks it beneath his dignity to assist that father in the routine of his domestic occupations? or, the young lady, whose "accomplishments" have been paid for by the self-denial of an indulgent mother, thinks it a reproach to aid that mother in the discharge of the duties of a diligent house-wife? It is because public opinion is all wrong in associating labor with degradation. Why is this? Labor is the first great law of nature. Nature herself is a great workshop where change, renovation and development are constantly going on. Inspiration tells us that the great Author of all things "rested from his labors" on the seventh day. The Redeemer of the world was known as "the carpenter's son," and it is thought by most biblical critics that he worked at the same trade until he entered on his great ministerial mission. The great apostle of the Gentiles was a tent-maker; and all the wisdom received at the feet of Gamaliel did not make him ashamed of his calling. And yet, strange to say, how many are there who profess the religion of the Savior and his apostles, who think it degrading to associate, even around the altar, with artisans and laborers, whose very lands may have reared the temple in which they worship. How little do the sons and daughters of extravagance, of luxury and of ease, reflect, that after all, it is to the mechanic, the artisan, the laborer, that they are indebted for the means of their enjoyment—and on the poor pittance of wages received, and the pangs of penury and want endured, by those to whose toil ingenuity and skill they are indebted, for the sumptuous viands with which they regale their appetites, or the costly habiliments in which they deck their persons. The purse-proud coxcomb who treads on downy carpets does not reflect that they are the product of the loom of the humble weaver—fashioned into beauty and softness, by his industrious hand, whilst his children are crying around him for bread. The gay and heartless female votary of fashion, who identifies labor with vulgarity, does not reflect that the costly gossimer tracery of laces and needle-work, in which she flaunts through the purlieus of dissipation, were wrought in some lonely garret by fingers attenuated with want, in hurried moments, divided betwixt the exactions of a cruel task-master, and the attentions upon a dying parent on a bed of straw. This is no sketch of fancy, it is stubborn fact.

I wish not to be misunderstood. It is not to be expected, or desired that intellect shall fraternize with ignorance or virtue with vice. A natural incongruity forbids such association. Public opinion needs no reformation in this respect.—But the reformation which is needed, and which we are led to hope, is silently working its way, is this—that the pursuits of honest labor shall no longer be a bar to the highest social position; and a stimulus thus given to the laboring man for the cultivation of his intellect, and development for the common good, of mental resources that might otherwise remain dormant; and by holding out to him the rewards of virtue, the paths of vice and dissipation may be shunned. These annual festivals of agricultural and mechanical industry, are working a powerful, though imperceptible moral influence in this respect. For the time being, they break down all the artificial barriers with which man has hedged in his lordly self. Our honors and rewards are to the most worthy. *Honor digniori* should be our motto. We have no use for drones in our hive. Industry and labor are the elements of our success. If we are to effect any thing for the good of our country, or the welfare of our fellow-men, it must be through the agency of these great sources of human good.

It is not my purpose to attempt any thing like a practical essay upon the details of a proper method of cultivating the soil, or the other kindred pursuits that appertain to rural life. I think it would be unsuited to the occasion. We have assembled for the purpose of receiving instruction through the eye, rather than the ear. The fever of feeling is too intense, the pulse of excitement is too high, to tolerate any thing like a detailed rouine of agricultutral improvement, or farm husbandry. Every latitude, climate and soil have their own peculiar systems of detail; and in North Carolina, we have but too lately waked up to the importance of systematic agricultural improvement, to have any special established data, for the benefit of those who may desire practical information. For the present, we have to rely on those general principles, which time and experience have proven to be applicable to all soils and climates—adapting them to our peculiar condition, as best we may. From the results of that adaptation, it is our aim and object, to develope information for the benefit of those who may succeed us. Besides, I have too lately entered on my noviciate in this great and noble pursuit, to presume to give instruction to many whom I see around me, of whom I would fain aspire to be an humble follower. I am here to learn rather than to teach. And if I were to attempt any thing like practical information, I should have to resort to sources equally in reach of you all—to the recorded achievements and experience of the great pioneers of agriculture in other lands. This knowledge a few shillings will procure, where established facts and settled principles that have undergone the closest investigation, in the closet of the student, the crucible of the chemist and the experience of the practical farmer, are embodied in language, far more simple and happy than any at my command. If I were disposed to attempt a display of agricultural learning, I might, it is true, urge on you the importance of thorough draining; but then, I should only be asserting what is now an established principle in agriculture; and in attempting to prove that every drop of water, more than nature requires for the growth of vegetation, is poisonous to the soil, my language would be dull and tiresome, compared with the glowing accounts in which agricultural writers speak of the smiling fields, and luxuriant harvests in England and Scotland, and some parts of our own country; where for centuries had stagnated muddy pools and sodden wastes. I might descant on the importance of deep plowing and thorough pulverization of the soil; yet how common place would my remarks be, compared with the views of the agricultural chemist, who proves on philosophical principles, that the rationale of this consists in enabling light heat and the constituent elements of the atmosphere the better to penetrate to the roots of plants, for whose nourishment and growth they are indispensible.

I might speak of the benefits of a rotation of crops and the importance of a more extensive root culture; but to you it would be far more edifying to learn from standard works on agriculture, that every specimen of the vegetable creation, like every department of organised life, feeds upon its own peculiar food—and consequently, a constant succession of the same crop, will ultimately exhaust the soil of some component element, indispensible to its productive power. I might speak of the importance of cultivating the grasses, both as an element of national wealth, and of permanent improvement; but why do this, when it is known to you that the hay crop of this country is second in value to the cotton crop only—when it is a well known fact that the greater the advancement of agricultural improvement in every country, the greater is the importance attached to the cultivation of grasses—and when it is still further known, to our reproach, that eastern North Carolina annually pays to the northern States, hundreds of thousands of dollars, for the article of hay alone. I might urge the importance of cultivating less land, and of devoting our energies to its more thorough improvement; but my language would be far less impressive, than the rural beauty which has often greeted your vision when traveling through the northern States of this Union; where handsome cottages, a plenteous board, smiling faces, and happy homes, constitute the wealth, and minister to the happiness of the owners of but a few acres, every foot of which is in a high state of fertility, devoted to some useful purpose, and yielding an abundant reward for their labor. I might insist on the necessity of manure, as a means of restoring and improving the soil; and on this point I presume, I should have less misgiving and prejudice to encounter, than on any other. This was, no doubt, the first movement ever made in agricultural science; and for thousands of years, continued to be the only one. The luxuriant vegetation following the accidental incorporation of manure with the soil, suggested itself to the senses, without the process of rational deduction. The importance of manure, as necessary to vigor of growth, and a sure return in fruit time, comes down to us sanctified by the moral teaching of the parable.—The life of the barren figtree was besought and spared for one more year, till man should do his duty, in applying to it, the elements of fertility. The present condition of England, where in the last hundred years, the average of the wheat crop has been increased from an average of 12 to one of 24 bushels per acre, and in many districts to 50 or 60 bushels—of Massachusetts, where a soil, naturally barren and rugged, has been so subdued and improved as to support one of the most wealthy and powerful communities on the earth—afford a more eloquent and convincing argument, in favor of carefully preserving and restoring to the soil, the elements of manure, than language can utter or pen can write. As to the best means of preparing it, and method of applying it—that belongs rather to the laboratory of the chemist, than the rostrum of the orator. I might dilate on the importance of lime, which both theory and experience have established to be the great basis of all permanent agricultural improvement; but why attempt this when the immortal work of Ruffin, one of the great public benefactors of his time, on calcareous manures, has in a plain and practical style, unfolded, not only treasures of knowledge, but mines of wealth, the existence of which were not dreamt of a few years since.

And so in regard to the entire catalogue of all branches of agricultural knowledge; if I were to presume to give instruction, I should fall far short of what may be obtained in any good agricultural journal, or the countless works of standard authority, which are daily issuing from the press, in supply of the demand for agricultural knowledge. It is not the difficulty of obtaining information, that is the bar to our progress. It is the difficulty of removing long cherished prejudice and ancient habit, of appreciating the wonderful progress in industrial enterprise that is in operation in the world around us, of awaking to the importance of availing ourselves of the vast stores of knowledge, that science and experience are daily bringing to light; of arousing a laudable ambition among our people to enlist as competitors in the great race of progressive improvement—these are all that is necessary to make our State one of the most prosperous, wealthy, and happy communities on earth. If I could be the humble instrument of stimulating your pride as North Carolinians; of impressing you with a sense of the high and honorable position you occupy, as the tillers of the soil; the influence you should exercise, in the moral, social, and political scale; the responsibility resting on you, in elevating the character of your country, and in diffusing the means of prosperity and happiness among your fellow-men; and the rights and privileges to which you are entitled under the government, as the great controlling and conservative element in our institutions, and the duty you owed to yourselves in asserting and maintaining them—if I could do this, I should feel that I had accomplished my task as the organ of the feelings and sentiments evoked by the occasion, in a manner honorable to myself and beneficial to my countrymen. But the theme is so vast, embracing so many interests, teeming with so many grand associations, as well moral as practical, that whilst I am overwhelmed with a grateful sense of the honor assigned me; I am appalled by the conviction of my inability to do justice to the subject and the occasion.

It is our good fortune, to live in an age of wonderful invention, of startling discovery, of astounding scientific development. It is emphatically the age of rapid progressive improvement. The striking peculiarity of the knowledge of the age, is its direction and application to useful and practical ends; in ministering to the necessities, the comforts and luxuries of man. In fact, it is the demand for that species of knowledge, that is whetting invention, stimulating ingenuity, and taxing intellect for its mightiest achievements. Geology, mineralogy, chemistry, botany, zoology, and natural philosophy, are not now cultivated, as the mere avocations of intellectual research, or to satisfy the philosopher's abstract thrist for knowledge; but as the instruments by which man is to subdue the material world to his control, and apply the immutable laws of nature, to the satisfying his wants. A minute knowledge and classification of primeval rocks, from the disentegration of which the soil is composed—the deductions arrived at from an acquaintance with the various strata and fossil deposites of the crest of the earth—an examination of the constituent elements of all material nature, their relations affinities and repulsions for each other—an acquaintance with the structure and vegetable phisiology of plants and trees and flowers; and the principle of their growth, decay and reproduction—an understanding of the peculiarities, habits, and capacities of animals, whether of the higher type or of crawling insects—the study of those laws of motion, and physical forces, by which Infinite wisdom governs the boundless universe—all these branches of knowledge are now pursued with a vigor and tenacity, unknown to the votary of ancient learning, and to answer the purposes of practical utility. They are made to serve the purposes, and direct the course of the miner in his search for mineral treasures in the bowels of the earth; and in ransacking the coal-fields which nature has laid aside in her great storehouse for the use of man, after the forests have fallen before a redundant population. They afford data, by which the physician is enabled to minister to human suffering; by which the manufacturer imparts the tints of beauty to his fabrics; by which the cutler tempers the edge of the implement of labor. They direct the engineer as he drives his car careering over the land—or propels his ship against wind and current.

It is to agriculture especially, that all these great departments of knowledge are coming to serve as handmaids. And it is a little remarkable, that agriculture, the oldest of human pursuits, the basis and support of every other branch of industry, should be indebted for its late wonderful advancement to the developments of other sciences; whilst their practical application requires materials furnished by agriculture alone. Mineralogy and geology teach the agriculturist the crude elements of which his soil is composed, and consequently, its peculiar adaptation to what may be most remunerative to his labor. Chemistry teaches him the component qualities of various branches of the vegetable kingdom, and the peculiar properties of various manures; that he may conform his crop to the natural capacity of the soil; or by artificial means, apply those sources of fertility, in which the soil is deficient. Botany teaches him the constitution and character of the cereal grains, as well as of trees and flowers; and thus enables him to aid their growth, and protect them against their natural enemies, by industry and care.—Zoology teaches him the peculiarities, instincts, habits, organic structure, useful qualities, and evil propensities, of brutes, birds, and insects; by which he may improve his stock, increase the size, beauty, docility, and vigor, of those noble domestic animals, so indispensible to man's comfort and profitable labor—and then again, to guard against the ravages of the insect tribe, so annoying, and frequently so destructive to the farmer's hopes. Natural philosophy teaches him the laws of winds and storms and rain, and frost; by which he may adjust his labor, regulate his "seed-time and harvest," according to the operations of nature. To descend a little to detail, a perfect construction of the plow involves a strick conformity with the principles of curves and angles; that friction may be lessened, and motive power increased.—The proper method of cutting a ditch, requires some knowledge of the laws of hydrostatics. What a field is here presented to the ambition of the farmer! The whole domain of human knowledge is not too broad for his research. Systematic agriculture, though yet in its infancy, is fast attaining its proper position by the side of its sister sciences. The farmer is at last within reach of that dignified position to which his calling entitles him, if he will only exert his strength and power in securing it. When we reflect on the importance of agriculture to the prosperity of a State, and on the great advantages of science and learning, to those who are engaged in its pursuits, who shall say they are not necessary for the farmer? Who shall continue still longer to confound agriculture with the habitual and laborious routine of the drudge? I am aware of the prejudice with many against "book-farming," as it is called. And at the time this prejudice was first excited, I am inclined to think there was some reason for it. It was an attempt to adapt the culture of other countries, with different soil in different climates, for the supply of a people with different wants, because it met with remunerating profits there. But it is science that has exposed the fallacy of such book-farming as this. Because turnips and beans and hops are of the most profitable crops in England, is no reason why they should be so here. Because blue-grass is so valuable a crop in the limestone region of Kentucky, is no reason why we should exhaust our energies in trying to establish its general culture in North Carolina. Such errors as these, such book-farming as this, it is the purpose of scientific agriculture to point out.

Agriculture, though so long regarded as the calling of the ignorant and the lowly, is invested with more interesting historical associations, than any other human pursuit. Although, on account of the disobedience of our first parents, the ground was cursed to the bringing forth thorns and thistles, and man condemned to "eat bread in the sweat of his face;" yet, what was imposed by divine justice as a punishment for sin, was tempered in divine mercy to his comfort and happiness, upon the condition of labor and industry. It was "to till the ground," that Adam was sent forth from the garden of Eden. We are told by the same authority, that the second great progenitor of mankind, "Noah, was a husbandman, and planted a vineyard." That agriculture was a divine institution, a blessing granted by divine benificence, is a prevailing idea in the religious impressions of almost every people. The Nile was personified in the Egyptian mind as entitled to divine honors; and the worship of Apis, under the form of an ox, typified their veneration for the plow. Among the ancient Greeks the festival of the Thesmophoria, as it was called, was annually celebrated in honor of Ceres, the goddess of agriculture; and was intended to commemorate the introduction of the laws and the regulations of civilized life, which were attributed to Ceres—thus typifying agriculture as the basis of civilization. Among the ancient Romans the decrees of the Senate were deposited for safer keeping in the temple of Ceres—as a token of their faith, that a sound and prosperous agriculture was the best guaranty of obedience to the laws and the preservation of the State. The "feast of Tabernacles" among the Jews, was a festival of thanks-giving, for the ingathering of the harvest. The Hindoo husbandman offers at the feet of his idol a portion of his newly-gathered harvest; and the green-corn dance of the North-America Indian, has its origin in the crude religious sentiment of this child of nature in the wilderness. Agriculture is the first industrial pursuit of man, after ceasing his nomad state and settling in a fixed habitation. Food being the first and most indispensible of human wants; and man having to rely upon the earth for a supply of food, as soon as he has abandoned the pastoral state; of course the cultivation of the soil becomes the first and most universal of human pursuits. It must of necessity, therefore, be coeval with civilization, and its chief element of strength Next to supplying his wants in appeasing his hunger, follows the necessity of houses in which to shelter against the inclemencies of the weather; barns to hold his grain, improved implements to till the soil; mills to grind his corn, and utensils to cook his food; and thus the mechanic arts follow as the adjuncts of agriculture, in ministering to his comforts. The exchange of his surplus products for those of his neighbors, gives rise to barter, as a means of obtaining luxuries; and thus arises commerce. The possession of property creates the necessity for some standard of value, and thus originates money. The acquisition of wealth, and the consequent enjoyment of liesure, contentment and ease, superinduce reflection; in looking upon the operations of nature around him, he is led to enquire into the causes of things—and thus grow up science, learning, and the cultivation of the moral sentiments. In his efforts to embody his abstract idea of the beautiful and the good, originate the potile arts, statuary, painting, architecture. And so on through the entire routine of all the industrial and ornamental pursuits that mark the highest and most refined civilization. We find agriculture is the base of this vast column, whose calminating point pierces the very heavens.

Political economists are in the habit of specifying agriculture, commerce and manufactures, as the three great elements of national prosperity and greatness. Yet, important as are manufactures and commerce in the development of national strength, valuable aidsas they are to the promotion of agricultural improvement; they are entirely dependant on agriculture, not only for their prosperity, but for their very existence. The earth is the great storehouse from which are originally derived the raw materials of manufacturing skill; and agricultural labor is the agent that supplies them to the workshop. It is the application of science to agricultural improvement, by which the labor of a part is made to supply the means of subsistence to the whole; and thus the manufacturer is fed, whilst fashioning the rude products of the agriculturist into the elements of comfort and luxury at home, or preparing them for the markets of distant lands. And so in regard to commerce. The morea nation produces, beyond its wants, the more it has to give in exchange for the products of other countries.—The fewer of its population, that, by means of agricultural skill, are enabled to supply food for the whole, the more can be spared and profitably employed, in manufacturing its products into articles of merchandise for foreign markets. The medium of this interchange and traffic are the ships of commerce. And here again, the very means of their construction and equipment, and the subsistence of those employed in their population, are supplied by agricultural labor. History and experience have proven the truth of the application of this principle to countries, even where the precious metals were most abundant. Nature never, even in the most highly-favored regions, bestows her bounties so freely, as to enable man to enjoy them, without some effort of labor. And so indispensible is the pursuit of agriculture to training man to habits of industry—so insignificant are the most successful labors of the rude gold-dust seeker, in companion with the vast stores of agricultural wealth, with which the earth teems; that in those counties where the mountains are filled with gold, commerce frequently languishes and dies, and poverty and ignorance prevail, for the want of an equivalent to pay for the products of other climes. Look to South-America for example. Her mountains glitter with the precious metals—and yet, with the agricultural resources, according to the accounts of recent explorers, in the valleys of the Oronoco, the Amazon and the La-Plata, not surpassed by those of the Mississippi; her States are without commerce, without manufactures, torn to pieces, by intestine factions. Look again to Russia, with her vastness of extent and power of numbers. Startling as at first sight, appear the Czar's wonderful annual resources, from the Ural mines; yet, he can not go through one military campaign without resorting to the markets of Europe for a loan. And so trifling is the commerce of that vast empire, that a close blockage of her almost entire sea-coast, by England and France, at the present time, is scarcely felt in its effects upon the great commercial relations of the world. Why is this? It is because her agricultural resources constitute so insignificant a portion of the marketable wealth of the world. It is because, there, labor is degrading, agriculture is identified with surfdom, the farmer has never yet waked up to the dignity of his calling. The history of the past has proven that, as agriculture has declined, man has retrograded to- wards his primerial state of barbarism. Look at Palestine—a small territory, which, in the days of her early Kings, was able to send 700,000 fighting men into the field, is now scarcely able to supply the wants of the roving Arabs that encamp upon its plains. Destroy agricultural improvement—that improvement which grows two blades of grass where nature produced but one—which enables one man's labor to supply the food for two—and the sound of the loom, the hammer and the anvil will no longer keep music in the valley, or the blast of the forge be heard on mountain side.

Commerce has done for the Atlantic, and is fast doing for the Pacific, what Xerxes, with an army of three millions could not do for the Hellespont—bridged it for the transit of nations—for an exodus of races—Anglo-Saxon, Celt, and Sclave, far exceeding in magnitude that of the Israelites to the promised land. Yes, Commerce has at last made the curcuit of the globe; in its vocation of interchanging the products of the field and the workshop, among distant lands, it has converted all nations where productive labor is encouraged, into one great brotherhood; and is fast teaching mankind, that it is by pursuing the arts of peace, and cultivating relations of amity and kindness, that the wants of man both moral and physical, can be best subserved. Let us suppose for a moment the earth should refuse, for one short year to reward the toil of the husbandman, and gaunt famine stalk through the land. The dependence of all other branches of industry on agriculture, would then be felt in its most awful import. The busy hum of industry, in mill and worshop would give place to the quiet of desolation—nature would soon pave the streets of cities with grass—and ships and wharves rot in ruin together.

One of the most striking manifestations of the industrial enterprise of the age is in the struggle man is now engaged in, with the obstacles presented by nature—in opening channels of communication, in laying down the pathways of trade and commerce, in pioneering the way for the iron rail and steam-engine. The vast stores of the Incas of Peru dwindle into insignificance compared with the hundreds of millions that have been expended in these monuments of human industry in the United States, in England. in France; and their march is onward towards the steppers of Asia. In their construction man has achieved victories over the elements, of which Archimides never dreamt. It was the boast of Napoleon, that whilst Hannibal had sealed the Alps, he had turned then—but the engineer has done more than either of these great conquerors; he has tunnelled them, not for the march of desolating armies, but for the transit of the products of the pursuits of peace—for the conveyance of the traveller in comfort and safety, beneath the roaring avalanche above his head. And what are railroads, but the veins and arteries, through which the products of agriculture, either in their crude state or as fashioned in the workshop, circulate; in seeking the markets of commerce? Whislt railroads are dependent upon the products of agriculture, yet the two are inseparably identified in interest. They act and reach on each other. It is upon the productions of the field and the workshop, that the railroad must rely for the materials of freight, the very means of subsistence—but then again, the construction of the railroad, by the benefits conferred, in contiguity to market, cheapening the cost of transportation, increased convenience in procuring the comforts and luxuries of life, affords a stimulus to the land-owner, to improve his land to its highest capability of production; and as the products of the land are increased, the railroad finds increased employment, and enhanced profits. This is no mere therory. Experience has every where proven it to be true. It is a mistake then to suppose—a mistake which the farmers of North Carolina indulged in for many years, to an almost fatal extent—that it is the speculator and the capitalist, who are principally intertered in the construction of railroads, and the advancement of internal improvement. Until within a very few years, the farmers of this state supposed, and demagogues found it to their interest to foster the delusion, that the only *interest* the farmer had in works of internal improvement was the *interest* on the State debt caused by their construction. But the diffusion of intelligence, and the teachings of experience have proven, that productive labor, after supplying the producer's immediate wants, are valueless, without markets in which to sell; and that markets are valueless, without the means of reaching them.

Whilst the objects of our association, mainly appertainto agricultural improvement and cultivation, as the basis of all industrial interprise; yet it embraces within its scope, the entire domain of productive labor, invention and skill. The development of all our resources—of the field, the orchard, and the garden—the arts whether useful or ornamental—the forests, the mines, or the fisheries—the encourgement of every branch of human industry, calculated to enhance the wealth and character of the State, and to add to the means of human comfort and happiness—the development of the highest efforts of the human mind in econonizing, and giving still greater efficiency to labor—all these grand and noble aims come within the province of our organization. One of the great agents in solving the industrial problem of the age, is the application of steam to the mechanic arts, and to the removal of the barriers to the progress of commerce. The mighty revolution effected by the use of steam, for a time, alarmed political economists with the fear, that such an augmentation of the powers of labor, would leave millions unemployed, or by rendering them unable to compete with that skill which employed the elements, instead of human hands, leave them to starve.—But experience has proven the groundlessness of these ap prehensions. Time has demonstrated, that the greater the improvements in labor-saving machinery, the more the forces of nature are rendered subservient to human control; the more extended are the means of human comfort, and the cheaper do they become of acquisition. So vast is the great store-house of nature's productions and powers; so surely does one great discovery in science or art pion eer the way for another; that the supply of one want creates the demand for another—the economizing of labor in one department of industry, opens still wider fields for its employ ment in others. The invention of the cotton-gin and the power-loom have felled millions of acres of forest, and covered mountain-sides with flocks of sheep; and thus given employment to thousands of hands, and investment to millions of capital, which Whitney and Jacquard, never contemplated or dreamt of. The planing machine (which may well be mentioned as among the great improvements of the age,) is likely to give a value to our forests, and a demand for labor in developing their resources, which never entered into the imagination of Woodworth. The invention of the reaping machine may for a time, interfere with the avocations of the few, who wield the scythe or the sickle; but it promises employment to thousands, in the millions of acres, which the facility of the harvest will apppropriate to the cereal grains.

The wonderful inventions in economising labor, which mark the present age—especially in the application of steam power—are making a slow but lasting impression on the political, as well as social and moral organization of christendom. In our own free country, they find the proper theatre for their full development; here they find ample scope and verge for their operation; and here they are soonest destined to yield their ripest fruits. There is something in the very atmosphere of freedom, that braces the human nerves for a conflict with the elements—and the consciousness of political equality stimulates genius to its grandest efforts. Emperors, and Kings, and Popes, Princicipalities and Powers, Thrones and Dominions, are true to their hereditary and despotic instincts, true to the warning instruction of a sound philosophy; when they look with distrust and misgiving, upon the progress of science and the useful arts, which teach man the dignity of his nature—upon the efforts of genius, which ignores all social caste and political inequality—upon the victory of mind over the material world, which tells them, this is a conquest more difficult, than the breaking of sceptres or the overthrow of thrones. There is something in the very sight calculated to warm up the fever of the blood, to whet the edge of the nerves, to awaken man to the dignity of his nature, and the high destiny of his mission; as he looks at the steam-engine, snorting over the land, or the steamer bellowing over the waves. It is progress personified, it suggests disregard for the old landmarks of opinion, it gives the impulse to *movement*. When Luther sounded the toscin of the Reformation in the streets of Wittenburg, its echoes waked the slumbers of ignorance and superstition throughout the christianworld; when the Bastile fell in 1789, it jarred the social fabric of christendom; but the whistle of the steam engine speaks to priestcraft and despotism in a voice more full of warning, than all the blood shed during the 30 years war, or all the victims sacrificed to the Demon of faction, during the French Revolution. As a free people, blessed with free institutions, whose "manifest destiny," I believe it is, to subdue a continent, carry civilization, liberty, law, and the Protestant religion to the Pacific, to the isles of the sea, to the shores of Japan and China, across the plains of Asia, and thus perform the circuit of the globe—it is a part of our high mission to honor, encourage and promote the application of genius to, and the economising of labor in, the useful arts; as a great agent in civilizing the world, in disseminating the blessings of freedom, and in propagating the doctrines of a pure christian faith.

I have said that the means of intelligence were within our reach—intelligence to enable us to avoid the errors of the past, and to avail ourselves of the improvements of the present and the future. An agricultural journal, devoted to the elucidation of general principles, and their application to our peculiar position, is indispensible to every practical farmer. Such a paper we have in our State, ("The Farmer's Journal")—a journal gotten up and sustained in the outset, as I well know, with great labor and expense; and even now, not supported as it should be. This paper is a North Carolina paper, it originated in North Carolina enterprise is devoted to North Carolina interests, and must rely on North Carolina pride for support. It would be a reproach to our State and our association, to allow it to fail. It is with due defence, then, that I would beg leave to appeal to the pride and public spirit of our association, and of our people here assembled, to sustain and support it. Even now, in its infancy, it compares favorably with the best Southern agricultural journals; but by increased patronage we shall strengthen and stimulate its conductors to make it a still more useful vehicle of information—a journal of which every North Carolina farmer shall feel proud.

When we look abroad, and take a survey of the industrial enterprise of the world; its influence upon the destiny of our race; and the prospects and promises held out by the future—we have cause, not only to be proud of our country, but to thank Heaven, that we can lay claim to a title no less to be prized, than was that of the Roman, in the palmiest days of his country's glory, that of AMERICAN CITIZEN. We have a country extending over 24 degrees of latitude, and 54 degrees of longitude—suited to the cultivation of almost every product known to agricultural wealth; with a commercial marine, second to that of Great Britain alone, and promising soon to exceed that; with manufactures in all the *useful* arts equal to those of any country, and making rapid progress in the *ornamental* also; with a literature, which, for a nation in its infancy, is unsurpassed, and which is extorting the reluctant tribute of admiration from the most rigid cities of Europe; with mountains and rivers, and lakes and prairies, whose vastness and grandeur excite feelings of sublimity and poetic awe; with the language of Shakspeare, and Milton and Bacon; with the law of Coke and Mansfield, and Blackstone; with the religion of Luther, and Crammer, and Whitfield, and Wesley; with arms not only hallowed by the blood of revolutionary martyrs, but illustrated since, by the glories of a Perry and McDonough on the water, and of a Scott, a Jackson and a Taylor on the land—situated in the great high-way between Europe and Eastern Asia—the seat of those vast stores of commercial wealth, which for centuries it has been the object of commerce to reach by the shortest route—is it a dream of fancy to suppose, that in the designs of Providence, we are the destined agent for civilizing the world?

To come nearer home, as North Carolinans, we have no cause to feel ashamed, but rather to feel proud of the position we occupy, in the great drama now being enacted on the theatre of christian civilization. So far as the past is concerned, in patriotic sacrifice, in devotion to our free institutions, in conservative regard for law and order, in veneration for the Union of the States, and in the cultivation of the private virtues that adorn and dignify human nature—all is secure. Our past history may not have been so much emblazoned by the imposing and the grand; but in every thing that implies a heroic devotion to the useful, the true, and the good, there is no community on earth that can more safely defy the impression of history's pen. In all the resources of industrial enterprize and wealth, whether agricultural, mechanical or commercial, I hazard nothing in saying, that there is no territory of similar extent in this broad Union, possessing superior advantages. Situated midway between the chilling frosts of the North and the scorching heat of the South, we are in a g eat measure free from the disadvantages of either; whilst our temperate climate enables us to avail ourselves of what is most profitable in both. For the great staple of Indian corn, every portion of our State is peculiarly adapted. For the staple of tobacco there is a tier of counties on our Northern border, which grow tobacco as profitably, and of as fine quality, as any portion of the United States Our midland and Southern counties produce cotton abundantly, and as a remenative crop. 1500 pounds per acre is a common yield, not only in Edgecombe, but in Hertford.

Wheat has long been successfully grown in almost every portion of the State—and the improvements now going on in the renovation of our lands, promise to soon make our State one of the finest wheat-growing regions of the Union. Rice is a great staple in some of our Southeastern counties—and there are thousands of acres of our Eastern swamps, now awaiting the hand of industry to convert them from stagnant wastes, into waving rice fields. Rye and oats, and peas and beans find in North Carolina a soil and climate particularly adapted to their growth.—There is not a finer country in the same latitude for the production of hay, and consequently for the rearing of fine stock, than the vast Peidmont region, extending from Raleigh west to the Blue Ridge.—The census returns show that flax is produced in North Carolina, to an extent I had not supposed—whilst our fertile mountain slopes, under a temperate sky, offer to the sheep raiser and wool-producer advantages no where exceeded in the world. The pea-nut crop, trivial as it may appear to some, is worth hundreds of thousands of dollars; showing that the barren wastes of sand in our South eastern counties, contain vast resources of wealth, awaiting only the hand of labor for their development. The resources of our forests are almost incalculable—and they are peculiar to North Carolina. The naval stores, and ship timber, and sawed lumber of our pine forests, the staves of our oak forests, and the shingles of our cypress and juniper swamps, give employment to tens of thousands of laborers—and their fertile soil is only awaiting the hand of the farmer, to be converted into luxuriant fields, as soon as the huge forest growth is removed. Our mineral resources far exceed those of any other State of the Union, except California.—Our gold mines are not worked by roving adventurers in search of alluvial dust—but by investedcapital, paying good wages to the laborer, and realizing good dividends to the capitalist.

Our coal mines have passed through the ordeal of scientific scrutiny—their wealth is incalculable, and they only await the completion of those improvements necessary for their transit to market, to pour their rich treasures into the great store-house of North Carolina wealth. Our copper mines equal in richness those of Wisconsin, and it is no uncommon sight the streets of Raleigh,a to see the miners of Cornwall wending their way to their caverns. The bowels of our mountains teem with the finest iron ore in the world—endless in quantity, tough and malleable as that of Sweden, in quality. Our manufacturing facilities are not exceededby those of any country on earth. All our rivers and their tributaries have the finest water power, that ever tumbled over cascade, or leapt down mountain-side—and that too in regions blessed with health and in fine air—with the richest ore at hand—and a fertile soil contiguous to supply the wants, and furnish the means of subsistence, to a manufacturing population.

An examination of the last census statistics, in reference to agricultural products, will exhibit results, astonishing to our own people, in regard to our resources, and productive industry. I have taken the trouble to prepare a comparative table* of the agricultural products of North Carolina, and those of Virginia and South Carolina, the two States contiguous, on

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*

		VIRGINIA.	N. CAROLINA.	S. CAROLINA.
Ag. population		1,421,661	869,039	668,507
Cotton	bales	3,947	73,845	300,901
Tobacco	lbs.	56,803,227	11,984,786	74,285
Flax	"	1,000,450	593,796	333
Wool	"	2,860,765	970,738	487,233
Rice	"	17,154	5,465,868	159,930,613
Butter	"	11,089,359	4,146,290	2,981,850
Hay	tons	369,098	145,652	20,925
Wheat	bushels	11,212,616	2,130.102	1,066,277
Oats	"	10,179,144	4,052,078	2,322,155
Indian Corn	"	35,254.319	27,941,051	16,271,454
Peas and Beans	"	521.579	1,584,252	1,026,900
Home made manufact'rs	$	2,156,312	2,086,522	902,525
Number of Churches		2,383	1,795	1,182
Church accommodati'ns		856.435	572,924	460,450
Children at School		109,775	100,108	40,373

our Northern and Southern border—whose witlings and up-starts have been in the habit of jeering us with our poverty and ignorance, even since the days of the revolution. I find the aggregate population of the three States to be as follows:

Virginia, - - -	1,421,661
North Carolina, - -	869,039
South Carolina, - -	668,507

Thus showing that the population of Virginia is nearly double, and that of South Carolina about three-fourth that of North Carolina. In the great staple of cotton, 'tis true South Carolina far exceeds us, her production being 300,000 bales; but not as much as we do Virginia—our product being 73,000 bales, and Virginia 3,000. In tobacco, Virginia greatly exceeds us, her product being 56,000.000 pounds; but not as far as we exceed South Carolina—our product being 11,000,000, and South Carolina 74,000 pounds. In wheat again Virginia is ahead of us, her product being 11,000,000 bushels—but we are far in advance of South Carolina in proportion to population, our product being 2,000,000 and South Carolina 1,000,000 bushels. In Rice South Carolina excells us greatly—she producing 159,000,000 pounds, and N. Carolina producing 5,000,000 pounds. Virginia produces scarcely any. In butter and hay, and oats, Virginia exceeds us but little, whilst we far surpass South Carolina. In Flax and Wool our comparative product is about equal to Virginia, and far in advance of South Carolina. In Indian Corn, peas and beans, we greatly excel Virginia, and immeasurably surpass South Carolina. But taking all these agricultural products together, in all these States, and we find that whilst in proportion to population, we are nearly equal to Virginia, we are far ahead of South Carolina. And taking the aggregate products of the three, our comparativeportion is in advance of either of them. This is no mere gasconade—figures prove it to be true.

And then let it be recollected, that in taking the census, no account was taken of our naval stores, our lumber and ship timber, our staves and shingles, and mines and fisheries, all of which constitute a portion of the production, wealth and resources of the State, and which peculiarly belong to North Carolina. Add these, and the annual product of the industrial wealth of North Carolina far exceeds that of either Virginia or South Carolina; with all the tobacco and wheat, the great staples of the farmer, and the cotton and rice, the great staples of the latter.

But I have not done yet. The same census returns show, that while the annual value of the home made manufactures in North Carolina amount to $2,086.522—those of Virginia are $2,156,312, and those of South Carolina $902,525—showing that North Carolina in proportion to population, is far ahead of either. The census tables exhibit an equally flattering picture in regard to our provision for the intellectual and moral culture of our people.—Whilst in North Carolina we have 1,795 churches, with church accommodations for 572,924 people; in Virginia,with nearly twice our population, they have but 2,383 churches with accommodations for but 856,435, and in South Carolina, 1,182 churches and accommodations for 460450. Then in regard to education: in North Carolina there are 100,008 children at school, in Virginia there are 109,775, and in South Carolina 40,373. It thus appears that in respect to the provisions for both intellectual and religious instruction,North Carolina is far ahead of each of these States.

And yet notwithstanding all this, look at the report from the Treasury Department, "on Commerce and Navigation," for 1850, the very year the census was taken, and you find that in the exports to foreign countries, Virginia is set down at,

Virginia - - - - - -	$ 3,087,444
North Carolina - - - -	426,748
South Carolina, - - -	15.316.578

This is the only criterion by which those unacquainted with the resources, judge of the comparative wealth of the three States. But let it be recollected, that all the North Carolina tobacco exported, seeks an outlet through Richmond, Petersburg and Lynchburg, and thus passes as Virginia produce. The same is the case with a large portion of our flour, wheat and Indian corn. Our 73,000 bales of Cotton, [and at this time it is more than double that amount,] seeks a market through Petersburg and Norfolk on the

North, and Cheraw, Camden and Columbia on the South, and thus goes to swell the amount of South Carolina exports. Besides, a large portion of the cotton exported from South Carolina is raised in Georgia. This report on Commerce and Navigation relates only to *foreign* exports and has no reference to our coast-wise trade. This beggarly account of the foreign exports of North Carolina is to be accounted for from the fact, that owing to our peculiar geographical position, and the want of good harbors on our coast; our products find an outlet through the ports of other States. or are shipped coastwise in small craft, that can pass over our shallow bars. As a proof of this, the same document exhibits the comparative tonnage of the three States, as follows—

Virginia, . . .	68,793 Tons.
North Carolina, . . .	43,780 "
South Carolina, . . .	35,187 "

showing that in proportion to population, North Carolina exceeds Virginia greatly, and is nearly equal to South Carolina.

It is thus apparent, that these two States have grown rich, and acquired character, upon our bounty; we have helped to build up their towns, and to sustain their works of improvement in draining us of our resources; whilst they have derided us for our poverty, and reproached us for the docility with which we have submitted to our wrongs. But, thank Heaven, a brighter day is dawning upon us. We have only to know our strength, to make us stand up for our rights; to appreciate our worth, in order to develope our resources, and to respect ourselves. All we need is a more perfect bond of union, a more thorough concentration of our energies. A perfection of our system of improvements will tend to bind us together, by the ties of interest and affection. By fostering our trade and commerce, within our borders, we shall build up cities and thriving towns, as nurseries of industry, enterprize, intellect, and ambition. By improving the soil and adding to the comforts and beauties of our homesteads, we shall teach our children to love the homes of their birth, and to venerate their father-land. By educating them at home, we shall teach them to reverence the institutions of the State, to guard her honor, to elevate her character, and protect her rights.

I hope I indulge in no idle dream, when I think I foresee, that this association, of which it is my pride and boast, to have been one of the original founders, is destined to be the means of desseminating intelligence, stimulating enterprise, encouraging ambition, diffusing the blessings of comfort, happiness and prosperity, and in elevating the character and glory of our beloved State—the fruits of which shall be reaped by others, after we shall be no more. We may not live to enjoy the full fruition of our labors; although our names may never be emblazoned on the historic page; or our deeds be commemorated on "storied urn, or animated bust;" yet we shall have laid the foundation for a great social, moral, and industrial edifice, for which our children and our children's children will heap blessings on our memories till they shall have laid the cap-stone of the superstructure.

On an occasion like this, it should not be forgotten, that it is to the benificence of a kind Providence we are indebted, for every blessing we enjoy. To His goodness we owe the plentiful harvest that has during the present year, crowned the labors of the husbandman—and the pleasant intercourse and joyous harmony that mark our present re-union. Whether prosperity or adversity befal us, we should reflect, that it is to His bounty we are indebted, for "every good and perfect gift." Whether success crown our efforts or disappointment mar our hopes, we should ever be ready to say in the sublime language of Habakuk, "although the fig-tree shall not blossom, neither shall fruit be in the vines; the labor of the olive shall fail, and the fields shall yield no meat; the flock shall be cut off from the fold, and there shall be no herd in the stalls:—Yet will I rejoice in the Lord, I will joy in the God of my salvation."

Considerable Hen.—Mr. A. G. Lataste, of Augusta, has a young Braham Pootra hen which commenced laying on the 12th day of last October, and has continued, with the exception of three days, to lay daily, up to March 8th—making a grand total of 144 eggs in 147 days.—*Georgia Citizen.*

THE FARMER'S JOURNAL.

RALEIGH, N. C., NOVEMBER, 1854.

☞ *All letters on business or subscriptions, must be addressed to W. D. Cooke, who alone is authorized to receive money on account of the Journal, and no name will be entered upon the books unless the money accompanies the subscription. Communications for the Journal should be addressed to Dr. Jno. F. Tompkins, Raleigh, N. C.*

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PROCEEDINGS OF THE STATE AGRICULTURAL SOCIETY OF N. C.

We are compelled on account of publishing the addresses of Messrs. Rayner and Reade, to postpone the publication of the proceedings of the State Agricultural Society in this number of our paper. There was nothing done of much importance during the session of the Society, with the exception of a memorial, which was read in relation to taxation on dogs, and a Committee appointed to present it at our next Legislature. It is a matter of the most vital importance to the advancement of sheep husbandry in our State, that the number of useless dogs is greatly diminished.

Our readers will in the next or December number, have another interesting article from the pen of that distinguished agriculturalist Edmund Ruffin, Esq., of Va. While we are using every effort in our power to advance the agricultural interest of the State, will not our farmers use some little effort to increase our circulation of the Farmer's Journal.

THE GRANVILLE CO. FAIR.

We had the very great pleasure of attending the Granville Co. Fair, held at Henderson a short time since, and we have never been more agreeably disappointed in our life. The exhibition was highly creditable every way, and the address of E. G. Reade, Esq., was received with unbounded applause by all. Mr. Reade is a great man, and one too who commands the admiration of our whole State. He is a self made man. The Granville Co. Society think of a connection with Warren and Franklin, in holding their Annual Fairs. If such an arrangement is made we predict that Granville will outstrip the other two counties. R. A. Hamilton, Esq., the President elect of the Granville Co. Society, is a good farmer and an enterprising man, and a thorough-bred North-Carolinian.

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The State Agricultural Society is now, we think, on a firm basis and the good that must result from its workings to the State cannot be doubted. We say let those persons who have been so talking about the failure of the enterprise cease to speak, for they may rest assured that it will not fail. We hope that our readers will adhere particularly to that part of Mr. Rayner's address where he speaks of the "Farmer's Journal," and use some exertions to increase its circulation. Our farmers must read if they expect to improve, and we cannot see why an agricultural paper, published in their midst would not be best adapted to their wants.

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The fine dark bay Stallion, Orange Boy, belonging to J. B. Leathers, again took the first premium, and very deservedly too. He is thoroughbred, and attracted the attention of every body.

ADDRESS OF E. G. READE, ESQ.,

Before the Granville County Agricultural Society, at its first Annual Fair, at Henderson, October 5th, 1854.

MR. PRESIDENT AND GENTLEMEN:

My position is an embarrassing one. I am not a practical farmer as you are practical farmers. Yet I have to speak to you of farming interests. I appear before you, therefore, with the same misgivings with which a pupil lisps his lesson before his masters.

I cannot speak to you of deep plowing and its advantages; of the rotation of crops and the application of fertilizers; of draining and irrigating; of seed-time and harvest, and many other things which observation and practice teach.—But there is a subject, upon which I have a few thoughts, which I hope you may find interesting: I mean the superiority of the agricultural and mechanical over every other interest and occupation.

I do not approach the subject as does the demagogue, who praises you without heart when he needs your favors. I shall not treat it with the view of prejudicing you against other interests and occupations. But I take it up for the purpose of raising it from the depressed and false position which it occupies, to the elevated and true position, to which it is entitled.

If to every youth who is preparing to entre the race of life with spirit, energy and talent; it were whispered with the first dawning of his ambition, and repeated with every day's progress, that such parts as his are not to be wasted at the bar; that the study and practice of the law were in no wise suited to his extraordinary capacity; that to be a lawyer, would be the same to bury himself and be unknown; to be poor and a drudge, and to lose cast in society; that only such as had no capacity for any thing else were lawyers; that if he looked for distinction, or even expected to be respected, he must eschew the bar; who would be a lawyer? If every one who is regarded as a dunce, were told that the only place that suited him was the bar; what would be the character and standing of the legal profession? Or, if the other professions were held in like repute, who would enter the professions?

And is not all this true of agriculture? What county, what neighborhood, what parent is it, that does not sort out the youths of the county, the neighborhood, the family, as their tobacco is sorted—the prime, the middle and the refuse? The prime is dressed and cared for, and put up for show and to get a name for the family; the middle is thrown upon the market—the community—to take the chances; whilst only the refuse is put upon the farm—as a farmer—to *improve* it, just as the refuse of the crop is thrown out for the same purpose. And then, when they speak of him, he is "*only* a farmer," or, "only a *common* farmer," or, to be very descriptive, "only a *clod-knocker*." Is it any wonder that agriculture is depressed? The wonder should rather be that it exists at all. Probably the best solution of the puzzle, is, that communities and parents are often times mistaken in their estimate of youths, and find that he who was selected as prime and dressed for show, has more pertness than prudence, more forwardness than discretion, more pretence than worth; whilst he who was thought to be inferior and fit *only* for the farm, has shown himself to be the man of sense and worth. Either this is so, or else there is that in the professions which debases that which is noble, and that in the pursuits of agriculture and mechanics which ennobles that which is base: for we find laggards at the bar, quacks in medicine, and time-servers and hangers-on in politics; and we find spirit, energy, talent and worth in the pursuit of agriculture and mechanics.

This being the depressed and false position which your pursuit occupies—beneath almost all other pursuits in public estimation; I propose to assign to it its true position, which I have already stated to be superior to all others.

I.—*It is so in conscience independence.*

The best thought with which a professional man can console himself, is that he is a *necessary* evil. The learned and virtuous Judge, who spends his life in an honest effort to make men do right, is still obliged to feel that he, himself, is a burden upon society: and that he is regarded the less so only because of the greater amount of evil which he prevents. So it is with the lawyer—so it is with the doctor: but so it is not with the farmer. Every thought of his mind, every strain of his muscles, is for the prosperity of the country. He is not supported by, but he supports the, country. Others clamour and show off in crowds; he, rests himself and reigns at home. Others live in the popular breeze; he lives in the breath of heaven. Others cringe and bow to power; he, only bows the knee to heaven.

II.—*It is so as a profitable investment.*

To prove this it might be sufficient to remind you that the world is supported by agriculture and mechanics. The necessaries and luxuries of all classes are supplied by them; and even the vices of the world feed upon them. But I design to be more particular and to contrast the profits of agriculture with the profits of other pursuits.

The standard of profit is money. The value of money is six per cent. per annum. The capitalist who realizes six per cent. is said to realize all that his capital is worth. To ascertain whether agriculture is profitable, therefore, it will be fair to compare it with capital invested at interest: especially as an opinion prevails, that capital invested in agriculture does not yield six per cent. I will put the case fairly: let A. have a capital of $10,000, and B. a capital of $10,000: let A. invest his capital at interest, and B. his capital in agriculture. The larger profit, at the end of a time, will show which is the more profitable investment. But there is a great error, common, in considering the experiment: the interest upon the capital is counted at its whole product—$600 per year—and only the *clear* profit of the farm is counted after supporting the farmer and family. Now, to try the experiment fairly, the capitalist must support himself and family out of the interest, and only count what *remains* as profit, if the farmer is to support himself and family upon the farm, and only count the *clear* profit. And if it takes the whole interest to support the capitalist, then his capital is standing still and yielding nothing clear, just as the farm is standing still and yielding nothing clear, if it only supports the farmer and family. And if it takes half the interest to support the capitalist then his capital is only yielding three per cent., and is no better than a farm yielding three per cent. When, therefore, the farmer is disposed to complain, or others complain at or for him, that his farm only yields three per cent, while his capital is yielding six. it ought to be remembered that he is *living* upon his farm, and is *not* living upon his capital, and that it cost something to *live.*

I coincide that there is a sort of farming that does not yield much close profit. It is farming upon the poorest land, because a great deal of it can be bought for a little money; it is cultivating a arge field, instead of improving a small one; it is making something for market and giving a fourth as a half of it to get it there. But even this sort of farming enables a man to live, and some even thrive at it. Indeed much the larger portion of our community have practiced it. If this sort of farming, however, will enable a man to live, and there is any improved system which will enable these farmers to make 6 per cent upon the capital invested, then they will be even with the capitalist, and have as much clear profit as he. And if the improved system will enable them to increase their profits beyond 6 per cent, then, to the extent they do increase it, will they be superior to the capitalist.

I propose to show the profitableness of farming, by comparing this unimproved, with the improved system—farming on rich land instead of a larger one; having a good market instead of a bad one. But then I am met with the difficulty that there is more poor land than rich; and that every one cannot buy rich, and some must buy poor land. This is conceded. But then if you have $5,000 to buy a farm, there is no necessity that you should give it for 1000 acres because it is poor. Better give half the money for half the land, and then you will have 500 acres of rich, instead of 1000 acres of poor land. And, if you want to make 100 barrels of corn, there is no propriety in cultivating 50 acres to do it, if the same can be made on 10 acres. And, there is no propriety in giving 50 cents a bushel, to get your wheat to market, if a way can be provided by which it can be carried for 14 cents.

But the question remains: can these farmers who have been standing still, merely living upon their farms' increase, the products of their farms 6 per cent., so as to put them upon an equality with the capitalist, who lends his money at 6 per cent.?

If your land yields 10 bushels of wheat per acre, and you make it yield 11 bushels, the increase is 10 per cent., and is equal to lending money at 10 per cent. If you increase the yield to 12 bushels, it is 20 per cent.; 13 bushels is 30 per cent.; 15 bushels is 50 per cent.; 20 bushels is 100 per cent., and is equal to lending money at 20, 30, 50, 100 per cent.—Again: If your wheat is worth in the market $1,00, and you improve the quality, so that it is worth $1,10, the increase is 10 per cent., and is equal to lending money at 10 per cent. Again: If your wheat is worth $1,00 in market, and it cost 50 cents to get it there, leaving but 50 cents nett, and a way is provided by which you can get it there for 25 cents, leaving 75 cents nett, there is an increase of 50 per cent., and is equal to lending money at 50 per cent. So that by increasing the yield from 10 to 11, and improving the quality from $1,00 to $1,10, and reducing the freight 25 cents, you have an increased profit of 70 per cent, equal to lending money at 70 per cent. Or, if you increase the yield but one-half bushel, and the quality but 5 cents, and reduce the freight but 12 1-2 cents, you will have an increased profit of 35 per cent., equal to lending money at 35 per cent.

Can it be difficult to produce these results? Let us see: As in everything else, so in farming, they are littles that make the profits. If A. makes 10 bushels to the acre, and B. makes 9, B. sees but little advantage that A. has over him in this; but it is an advantage of 10 per cent. And if A. gets $1,00 in the market, and B. gets 90 cents, B. sees but little advantage in this, but it is an advantage of 10 per cent. And if A. pays 40 cents to get his to market, and B. pays 50 cents, B. sees but little advantage in this, but it is an advantage of 20 per cent.—And when the two tens and the twenty are put together, they make a difference of 40 per cent. Now if one capitalist lends his money, *without* interest, and another lends his at 40 per cent., it will readily be supposed that the one will stand still or fail, and the other will soon be rich: and yet the difference between them, is precisely the same as the difference between farmers, A. and B.

But it is not alone the *quantity* raised upon a farm that makes farming profitable; it is the value of what is made over the cost of making it, in connection with the quantity. For example: if it cost 60 cents a bushel to raise wheat, and you get only 60 cents for your wheat, then it matters not at all whether you make 100 bushels or 1000, the *clear* profit will be the same, and will be nothing. But if you can raise wheat at 60 cents, and sell it at 70 cents, then the profit is 10 cents, and the greater the quantity, the greater the profit. Again: If it cost 60 cents to raise wheat, and 40 cents to get it to market,—making $1,00, and you get but $1,00 for it, then whether you have much or little, there is no profit. But if it cost 60 cents to raise it, and 30 cents to get it to market,—making 90 cents, and you get $1,00 for it, then the profit is 10 cents. From these considerations, it will be seen that there are, mainly, three ways of increasing the profits of farming:

1st. To lessen the cost of raising.
2d. To improve the quality.
3d. To lessen the freight to market.

1st. As to the cost of raising: If you have two acres that will produce 10 bushels of wheat per acre, and it takes 2 bushels to seed them, and 2 days to plow them, (which is equal to 2 bushels more,) and 2 days to harvest them, (which is equal to 2 bushels more,) then the seed, the plowing and harvesting, are equal to 6 bushels; and if you make 20 bushels, are equal to 30 per cent. of the crop. Now suppose you take the price of one acre, and put it upon the other in improvement, and make the other acre produce 20 bushels; with 1 bushel seed, 1 day's plowing, and 1 day's harvesting; all equal to 3 bushels instead of 6, and only 15 per cent. of what you will make, instead of 30 per cent. Then there is a clear saving of 15 per cent, in the cost of raising. So that reducing the size of your farm, is one way of lessening the cost of raising. (The foregoing calculations are only intended to approximate correctness so as to illustrate the principle.) Again: You may lessen the cost of raising by availing yourself of the improvements in tools and machinery. What an improvement is the scythe and cradle over the old reap hook! What a labor and time-saver it is! And although the scythe and cradle is all that is necessary for the small farmer, yet, for the large farmer, what an improvement is the "Reaper" over the scythe and cradle! And what an improvement is the Threshing-machine over the old hickory-flail! and the improved fan, over the sheet, with a man at each end—not to mention many other things which save time and labor, and thereby lessen the cost of raising, and thereby increase the profits of farming.

But the advantage which this gives the farmer in the market, is not the only, nor indeed, is it the *great* advantage. The time saved from profitless toil in the farm, gives him *rest*—makes him feel less like a slave—more like a free man—gives him an opportunity of improving his mind, training his children, and enjoying his family and friends. The farmer with this leisure to enjoy life, does not think of cutting down his shade-trees, and otherwise making his dwelling naked and forbidding, lest its comforts should detain him from his toil in the field. But he *plants* shade trees and fruit trees—turfs his yard, flowers his garden, gravels his walks, paints his house, curtains his windows, carpets his floors, dupes his daughters, visits his neighbors, entertains his friends, and, what with music, myrth and piety, regards his home as the happiest place in the world.

2nd. As to improving the quality of the produce:

One man's wheat is diseased and faulty; another's is healthy and sound; and the difference in the price is corresponding. One gets $10 for his labor, another gets $5; and yet their fences gain, and one labors as the other. One raises a colt and sells him for $100, another sells his for $50; and yet the cost of raising was the same. He who would raise good grain, must look to his seed—its kind, its preparation, the quantity sown, the time of sowing, the preparation of the ground, the tillage, the harvesting and the curing. He who raises and keeps animals, must know that the best consume no more than the worst: that the slub and rotund berkshire, consume no more than the long-lean-land-pibe,—the symetrical and yielding devon milcher, than the awkward and stingy native—the spirited, handsome and docile charger, than the dull, raw-bone, and vicious cart-horse. Indeed, so universal is this rule, in regard to *all* *animals*, that I doubt whether the tidy, healthy, lively, handsome, industrious, inteligent, virtuous, pious "Farmer's-daughter"—God bless the "Farmer's-daughter!"—is any more expensive, than the tawdy, artificial—but I cannot draw the picture of the opposite, because there is an original before me to sit for it.

3d. As to lessening the freight to market:

If it cost 60 cents to raise wheat, and you get $1,00 in the market, then the profit is 40 cents a bushel, bating the freight. If the freight is 40 cents, then the whole profit is consumed.—If the freight is 50 cents, then it cannot be sold in the market at all, because the cost of raising and freight are $1,10, and the market price but $1,00. In order, therefore, to realize a profit, the freight must be reduced. If the freight is reduced 10 cents below 40 cents, then the profit is 10 cents, equal to 10 per cent., and equal to lending money at 10 per cent. But this is not all. There will be the same saving in freight upon your lime, plaster, guano, iron, salt, sugar, coffee, and every species of merchandise in return.

But I need not labor this proposition before *you*. Every one who hears me is a witness to its truth. Not many years ago you gave 50 cents a bushel to get your wheat to market, when you could get it there at all. Now you pay 14 cents, and can get it there at any time. The grain which was in your barn yesterday, is in market to-day. The goods which you order to-day, will be here to-morrow, and at a cost in freight so trifling as hardly to be felt.

Does your business call you from home to-day? By to morrow's dawn you will have travelled over such space as is not occupied by the mightiest empires of Europe. And still, at the same speed, traveling onward and onward, until amazement itself is lost in the vastness and splendour of a country you can call your own.—Europe is your ninth-day neighbor! To China can hardly be called a a journey; or the circumference of the globe a voyage.

What is it that has brought about this change? Evidently the improvement of ways and the success of mechanics. I stand in view of one of these improved ways—a vast avenue, extending from the seaboard far into the interior of the country, and still to be extended. Along which courses the mighty engine, driven by a power which knows no obstacle, and at a speed which knows no tarrying. Scarcely yet is lost the rumbling of its power as it passed you this morning; even now it is proudly and terribly dashing over the territory of a neighboring State; and before the evening the breath of its nostrils will challenge the leviathon of the ocean. And soon it will be back again, unharmed by its conflict with time and space, and lavishly scattering among you, as trophies of its victory, the richest products of every clime and country.

And alongside is the still greater wonder—the lightning's pathway!—the tamed, trained, educated lightning! speaking our language, bearing our messages, obedient to our wills, serving our ends, annihilating time and space.

On, on, ye mighty engine! make haste ye lightning messengers! This vast country demands your greatest powers your utmost speed.

But the improvement of ways, is not of individual enterprize. It is for every one to choose whether he will cultivate a large field or a small one; whether he will raise one quality of grain as another: but whether he will have an improved way of getting to market is not of his choosing. For this there must be concert of action. The whole State must operate. Not only the State, but *States*, must co-operate. Yet every individual should feel and act as if the responsibility were his own: for there is nothing real in the idea of a community or State only as it is composed of individuals. Nor should the fact that you *have* a way provided for you, make you the less interested in providing a way for others. Every one must have a way. The whole State must be traversed by improvements. They must go everywhere—from the seaboard up into, all among and over the mountains.—Arousing their slumbering but mighty energies; developing their mines; distributing their minerals; opening their healthful fountains, and offering their tracing clime to visitors; enabling us to know each other, and each other's interest, and to help each other, making us neighbors; bringing remote sections of the State together; so that the sturdy mountaineer may leave his home in the morning, and lay his strong hand on "old ocean's wave" in the evening, and bathe his brawny limbs, and compare its reckless mightiness with the stain majesty of his own mountains.

The fact ought not to be concealed at home, that, with undeveloped resources, supposed to be almost, if not quite, equal to any, North Carolina is every where spoken against as the poorest State in the Union. It is true that as an equivalent for this she has always had the character of being the most honest; but we are taught to pray against poverty "lest we be poor and steal." If there be truth in what is said against us, it may be, therefore, that there is danger of our becoming so poor as to loose our character for honesty. But those who know us best have placed along-side with our character for honesty another virtue—modesty—which prevents us from blazoning our worth. But in order that there may be no semblence of truth in what is said against us, let us arouse ourselves; "shake off the dew drops that glitter on our garment;" wake up the sleeping energies of our people; stay the tide of emigration; develop our hidden resources; send out giant arms with iron muscles and steel nerves, and bring them to market; and make our State what she deserves to be one of the first States in the Union.

I hope it will not be thought foreign to the occasion for me to say to you, that having realized the great advantages which result from improvements, you will, through your representations manifest a liberal spirit, and not only support, but urge every improvement which may be proposed when ever it is needed.

III. It is so in pleasurable enjoyment.

The professional man lives in the crowd. His home is amid the strifes and storms of the world. Even his hours of seclusion have often to be spent in preparation for the coming fray. When he is thought of, it is, probably, in the unpleasant connection with some successful effort to maintain right. But the farmer lives at home—lives in his family, rises with the day and consecrates; early greets the "dewy morn;" walks forth amid his herd, which receive him as their lord; look out upon his teeming fields, his green meadow, the ripling stream, the shady grove alive with native songsters; breathes the pure air fresh from the hills and rich with perfumes; eats his healthful morning meal; goes forth to labor when there is need; and returns again to his well-furnished, comfortable mansion, to rest to read, to meditate, to enjoy his family and friends, and to be glad.

But the farmer's own engagement is not the only advantage to be considered: that of his family is as important. And where else should they be but in the retirement of the farm-house? Where else does the wife appear the queen she is, but in the management of the domestic circle—planning her garden, growing her fruit, tending her dairy, clothing her family, educating her children, dispensing hospitality and charity? "She stretcheth out her hand to the *poor;* yea, she reacheth forth her hand to the *needy.* She is not afraid of the snow for her *household;* for all her household are clothed with double garments. She maketh *herself* coverings of tapestry; her clothing is silk and purple. Her *husband* is known in the gates, when he sittith among the elders of the land. Her *children* rise up and call her blessed; her *husband* also and he praiseth her. Many daughters have done virtuously; but thou excellest them all."

And where else shall sons and daughters be reared but in the innocence of the country nursery? Where else can be found such innocent amusement—such healthful and invigorating exercises—such profitable employments? Where else can be found such simplicity and sincerity of manners, such kindness, such affection, such cheerfulness, such beauty, as every evening gather around the farmer's fire-side? And what scene on earth surpasses that which is described by the Scottish bard in his "Cotter's Saturday night:"

"The cheerfu' supper done, wi' serious face,
They round the ingle, form a circle wide;
The sire turns o'er wi' patriarchal grace
The big ha' bible, once his father's pride;
His bonnet rev'rently is laid aside,
His lyart haffets wearing thin an' bare:
Those strains that once did sweet in zion glide,
He wales a portion with judicious care;
And 'let us worship God,' he says with solemn air.

"Then kneeling down, to Heaven's Eternal King
The saint, the fathers and the husband prays.
Hope springs exulting on triumphant wing
That thus they all shall meet in future days,
There ever bask in uncreated rays:
No more to sigh or shed the bitter tear;
Together hymning their Creator's praise
In such society, yet still more clear;
While circling time moves round in an eternal sphere.

',From scenes like these the 'country's grandeur springs
That makes her loved at home, revered abroad:'
And arıs in fair virtue's heavenly road,
The *cottage* leaves the *palace* far behind."

And although it is not now, yet soon the pursuit of agriculture will be superior to all others in "honorable distinction."

So soon as the improvements which are now beginning shall become common—so soon as leisure is afforded the farmer to improve his mind; and his profits are such as to enable him to educate his family; so that the farm-house shall be the seat of learning as it is now the seat of virtue, he will no longer be "*only* a farmer," or "only a *common* farmer:" but he will be a "country gentleman"—the "distinguished citizen." And then of others it will be said he is "*only* a doctor," or "*nothing* but a lawyer."

I conclude, therefore, that the pursuit of Agriculture and mechanics is superior to all others.

I. In conscious independence.

II. As a profitable investment.

III. In pleasurable enjoyment.

I should do injustice to my feelings, Mr. President, if I did not praise you for the splendid show, at this your first "Industrial Exhibition." Heretofore you have had nothing to stimulate you to excellency; yet your specimens of stock, produce and machinery, might be put upon the best Fair ground without suffering by comparison. And the handiwork of the ladies would take premiums *any where.* And I verily believe the ladies themselves would be carried away captives. But tell me, Mr. President, are these only your best specimens, or does the country abound in them? And have you any to spare?

Well done, people of Granville! You have set the country a noble example! May you reap a rich reward for your *industry* here, and *rest* forever hereafter.

A LIST OF PREMIUMS

Awarded at the second Annual Fair of the North Carolina State Agricultural Society, held in Raleigh, October 17*th*, 18*th*, 19*th* and 20*th*, 1854.

Thoroughbreds.

Stallion, Regent, 14 years old, T. H. Miles, Halifax, 1st premium, $10

Stallion, 4 years old, P. C. Cameron, Orange, 2d premium, 5

Bay Colt, 2 years old, D. McDaniel, Nash, 1st premium, 5

Colt, "Young Regent," 1 year old, Master J. Davis, Granville, dip.

Bay Filly, "Dolly Regent," 2 years old, W. H. Hughes, Granville, 1st premium, 5

Black Filly, "Anna Isabella," 2 years old Josiah Turner, Hillsboro', dip.

Stallions.

Bay Stallion, "Orange Boy," 7 years old, J. B. Leathers, Orange, 1st premium, 10

Gray Stallion, "Jno. Randolph," 4 years old, Sol. O'Bryant, Roxboro', 2d pre. 5

Brood Mares, Fillies and Colts.

Brood Mare, 5 years old, A. S. Williamson, Caswell, 1st premium, 10

Brood Mare, J. J. Bobbitt, Granville, 2d premium, 5

Brood Mare, T. A. Yancey, Roxboro', dip.
do do P. C. Cameron, Orange, dip.
do do W. A. Eaton, Granville, dip.

Bay Filly, 3 years old, Fenner Young, Wake, 1st premium, 5

Bay Filly, 3 years old, J. B. Leathers, Orange, 2d premium, dip.

Filly, 3 years old, Wm. E. Wyche, Granville, dip.

Filly, 2 years old, C. Olives, Chatham, 1st premium, 5

Filly, 2 years old, T. J. Moss, Northampton, dip.

Filly, 2 years old, Jos. Dixon, Alamance, dip.

Colt, 7 months old, Alex. Dixon, Orange, 1st premium, 5

Colt, 6 months old, R. B. Allen, Granville, dip.

Colt, 6 months old, W. Washington, Granville, dip.

Bay Colt, 1 year old, Marcus Erwin, Orange, dip.

Match Horses.

One pair Horses, H. L. Hazell, Graham, 1st premium, 10

One pair Gray Horses, R. M. Young, Granville, 2d premium, 5

Single Harness Horses.

Buggy Horse, 5 years old, W. Barford, Oxford, 1st premium, 5

Buggy Horse, (Bay,) 6 years old, J. L. Jones, Granville, dip.

Buggy Horse, (Sorrel,) W. H. Hughes, Granville, dip.

Saddle Horses.

Saddle Horse, J. W. Lewis, Milton, 1st premium, 5

Saddle Horse, S. G. Hayes, Granville, dip.

Jacks and Jennets.

Jack, 8 years old, Rufus Jones, Wake, 1st premium, 10

Jack, 8 years old, D. McDaniel, Nash, 2d premium, 5

Jack, 3 years old, S. H. Cannady, Granville, 3d premium, 5

Jennet, 6 years old, S. O'Bryant, Roxboro', 1st premium, 1

Jennet, 2 years old, Sol. O'Bryant, Roxboro', 2d premium,

Mules.

Mule, 2 years old, J. R. Mason, Northampton, 1st premium,

Mule, 27 months old, J. M. Brewer, Forestville, di

Durham's and Grades.

Durham Bull, 5 years old, J. Hutchins, Raleigh, 1st premium, 1

Durham Grade, 18 months old, Wm. Russell, Caswell, 1st premium,

Durham Grade, 18 months old, Wm. Russell, Caswell, 2d premium, di

Milch Cow, "Dutchess," 7 years old, Mrs. E. L. Taylor, Raleigh, 1st premium, 1

Milch Cow, "Kentucky," 5 years old, W. T. Dortch, Wayne, 2d premium,

Heifer, (grade,) 3 years old, D. McDaniel, Nash, 1st premium,

Heifer, (grade,) 18 months old, Wm. Russell, Caswell, d

Heifer, (grade,) 5 months old, William Russell, Caswell, premium,	5

Devons and Grades.

Devon Cow, 9 years old, S. Smith, Raleigh, 1st premium,	$10
N. &. S. Devon Cow, 5 years old, D. McDaniel, Nash, 2d premium,	5
Heifer, 2 years old, D. McDaniel, Nash, 1st premium,	5
Heifer, 15 months old, Dr. Wm. R. Holt, Davidson, 2d premium,	dip.
Calf, 12 months old, Dr. Wm. R. Holt, Davidson, 1st premium,	5
Calf, 12 months old, D. Wm. R. Holt, Davidson, 2d, premium,	dip.
Bull, T. W. Battle, Edgecombe, 1st premium,	10
Bull, 2 years old, D. McDaniel, Nash, 1st premium,	5
Bull, 2 years old, T. W. Battle, Edgecombe, 2d premium,	dip.
Bull, (Devon and Durham,) 3 years old, Wm. Russell, Caswell, 1st premium,	5
Bull, (Devon,) 3 years old, D. McDaniel, Nash, 2d premium,	dip
Second grade Bull, 6 months old, T. W. Battle, Edgecombe, 1st premium,	5
One Bull Calf, 15 months old, Dr. Wm. R. Holt, Davidson, 1st premium,	5
One Bull Calf, 1 year old, Dr. W. R. Holt, Davidson, 2d premium,	dip.

Ayreshires, Alderney's, &c.

1 Ayreshire Cow, 5 years old, D. McDaniel, Nash, 1st premium,	10

Native Cattle.

Heifer, 16 months old, T. P. Devereux, Raleigh, 1st premium,	5
Cow, "Mag," 5 years old, Mrs. E. L. Taylor, Raleigh, 1st premium,	5
Black and White Cow, 4 years old. T. P. Devereux, Raleigh, 2d premium,	dip.
Bull, 4 years old, W. M. Jones, Raleigh, 1st. premium,	5

Working Oxen.

One Yoke Working Oxen, 5 and 6 years old, Wm. Russell, Caswell, 1st premium,	5
Two Yokes Working Oxen, 4 and 7 y's old, Mrs. E. P. Jones, Wake,	dip.
One Yoke Working Oxen, 6 years old, Seth Jones, Wake,	dip.

Fat Cattle.

1 Yoke Devon Oxen, 4 years old, Dr. W. R. Holt, Davidson, 1st premium,	10

Milch Cows.

1 Devon and Durham Cow, 5 years old, D. McDaniel, Nash, 1st premium,	10
Durham Cow, "Bettie Bliss," 4 years old, Mrs. E. L. Taylor, Raleigh, 2d premium,	5
1 Cow, "Nicy," 3 years old, D. McDaniel Nash,	dip.

Sheep.

1 Pen Lambs, R. A. Jenkins, Williamsboro, 1st premium,	5
Pen of Lambs, Seth Jones, Wake,	dip.
1 Buck, 3 years old, H. McLean, Cumberland, 1st premium,	5
1 Buck, 18 months old, R. A. Jenkins, Williamsboro, 2d premium,	dip.

Swine.

Chester Boar, 2 years old, Jere. Nixon, Raleigh, 1st premium,	5
Chester Boar, 7 mo's old, P. Mitchell, Warren, 1st premium,	5
Native Boar, 2 1-2 years old, J. J. Canady, Wayne, 1st premium,	5
3 China Pigs, 3 mo's old, H. McLean, Cumberland, 1st premium,	5
Suffolk Sow, 6 mo's old, T. D. Meares, Brunswick, 1st premium,	5
Sow and Pigs over 2 years old, W. H. Williams, Franklin, 1st premium,	5
Sow and Pigs under 2 years old, J. Moss, Raleigh, 1st premium,	5
Large Hog, W. H. Williams, Franklin,	3
Large Hog, L. D. Howell, Wayne,	3

Poultry.

4 Coops Brahma Pootras, J.C.Partridge, Raleigh, 1st premium,	3
Trio Buff Shanghaes, W. Whitaker, jr. Raleigh, 1st premium,	3
Trio White Shanghaes, W. Whitaker, jr. Raleigh, 1st premium,	3
Gray Shanghaes, A. Alden, Cumberland, 1st premium,	3
Black Shanghaes, J. C. Partridge, Raleigh, 1st premium,	3
Black Shanghaes, Mrs. Jere. Nixon, Raleigh, 2d premium,	Farmer's Journal.
Trio Game Fowls, J. H. Avent, Nash, 1st premium,	3
3 Coops Game Fowls, J. J. Williamson, Raleigh, 2d premium,	Farmer's Journal.
1 Coop Hong Kong Geese, J. A. Bullock, Granville, 1st premium,	3
1 Wild Turkey Cock, Wm. Crudup, Granville, 1st premium,	3
1 Coop Golden Seabrights, J. C. Partridge, Raleigh. 1st premium,	3
1 Coop Silver Seabrights, J. C. Partridge, Raleigh, 1st premium,	3
1 Coop Golden Hamburgs, J. C. Partridge, Raleigh, 1st premium,	3
1 Coop Siberian Bantams, J. C. Partride, Raleigh, 1st premium,	3

1 Coop Bantams, Masters John H. and William Jones, Raleigh, Farmer's Jour.

Trio Ducks, W. H. Scott, Raleigh, 1st premium, 3

1 Pair Ducks, E. Hall, Raleigh, 2d premium, Farmer's Journal.

1 Coop Buff Shaghaes, J. C. Partridge, Raleigh, 2d premium, Farmer's Journal.

3 Hoang Ho Fowls, Geo. Whiting, Raleigh, 1st. premium, 3

Lot of Speckled Dorkings, D. McDaniel, Nash, 1st premium, 3

1 Pair Turkeys, (Cross,) Mrs. Josiah Crudup, Granville, 3

2 Coops Cochin Chinas, Mrs. S. S. Roys-

1 Coop Cochin Chinas, J. C. Palmer, Raleigh, Farmer's Jour.

ter, Granville, 1st premium, 3

1 Coop Capon Chickens, Jas. F. Taylor, Raleigh, 3

1 Pair Poland Ducks, Mrs. J. B. G. Roulhac, Raleigh, 3

For largest and best variety of Poultry, J. C. Partridge, Raleigh, 5

Agricultural Productions.

Indian Corn, R. H. Smith, Halifax, pre. 2

Black Peas, " " " 2

Iverson's Rescue Grass, E. Hall, Wake, premium, 2

Sample White Wheat, W. R. Holt, Davidson, premium, 2

6 Pumpkins, Jas. Kirkpatrick, Wake, premium, 2

12 White Sugar Beets, Jas. Kirkpatrick, Wake, premium, 2

1 Bag Rough Rice, W. H. Burgwyn, pre. 2

1 Lot Turnips, J. A. McMannen, pre. 2

1 Bbl. Irish Potatoes, Dr. Geo. Field, Warren, premium, 2

Agricultural Implements.

3 Tooth Guage Plow, Ch. H. Drury, Baltimore, premium, 5

3 Steel Point Cultivators, Borum & McLean, Norfolk, 5

1 Subsoil Plow, W. B. Williams & Co., Warren. 5

1 Cotton Plow, do 5

1 Single Horse Plow, and plowing, K. Wainwright & Co., Oxford, 5

1 Peekskill Double Plow, C. H. Richmond, Milton, 5

1 Double Imp. H. Side Plow, and Plowing, Mott, Lewis & Wilson, Richmond, 5

2 Cast Expanding Cultivators, Mott, Lewis & Wilson, Richmond, dip.

1 Jumping Coulter Plow, R. A. Jenkins, Granville, dip.

1 Field Roller, C. H. Drury, Baltimore, 5

1 Shifting Harrow, Sinclair & Co., " 5

1 Clod Roller Serrated, " " 5

1 Brace's Grain Cradle, " " 5

1 No. 19 1-2 Plow, Seth Marsh, Norfolk, dip.

1 No 20 two-horse Plow, Seth Marsh, Norfolk, dip.

1 No 1 Plow and Cultivator, J. H. Gooch, Granville, dip.

Farm and Pleasure Vehicles.

1 Two-horse Waggon, G. W. Simpson, Caswell, dip.

1 Close Carriage, Pier & Brannin, Fayetteville, $25

Dibble & Brothers, of Kinston, exhibited a very fine Carriage and Buggy which came in too late for competition.

Hand Power Machinery.

1 Rockaway Wheat Fan, J. Montgomery & Co., Baltimore, 5

1 Gilbert's Wheat Fan, C. Burnet, Henderson, 5

1 Motts Improved Wheat Fan, Mott, Lewis & Wilson, Richmond, dip.

1 Improved propeller Straw Cutter, R. Sinclair, 5

1 Straw Cutter, Stafford, Clark & Dixon, Alamance, 5

1 Single Spout Corn Sheller, Mott, Lewis & Wilson, Richmond, 5

1 Double Spout Corn Sheller, Mott, Lewis & Wilson, Baltimore, dip.

1 Patent Churn, E. S. Gaylord, Oxford, 5

2 Hominy Mills, Borum & McLean, Norfolk, dip.

1 Sausage Stuffer, Borum & McLean, Norfolk, dip.

1 Garden Engine, J. Woltering, Wake, 5

1 Farm Gate, C. H. Richmond, Milton, 5

4 Bench Planes, W. H. Morning, Johnston, dip.

1 Spout Double Sheller, R. Sinclair, & Co., Baltimore, dip.

1 Merrimans Hay and Cotton Press, R. Sinclair, Baltimore, 10

1 Smut Machine, J. McMannin, South Lowell, 5

1 Circular Saw, A. C. Lee, Raleigh, 3

1 Sausage Cutter, J. M. Towles, Ral. 3

1 Tobacco Press, C. H. Richmond, Milton, 10

Horse and Steam Power Machinery.

1 Sweep Horse Power, R. Sinclair & Co. Baltimore, 10

1 do do C. H. Drury, do dip

Light horse Powers and Thrashing Machines, exhibited by Messrs. Stafford, Clark & Co., Alamance, David Dixon, Alamance, and James H.

Gooch, Granville, being considered of equal merit, are awarded a Diploma.

1 Threshing Machine, Sinclair & Co., Baltimore,	10
1 Wheat Drill, do do	10
Corn and Cob Crusher, A. M. Rocwell, Tarboro',	5
Best Cotton Gin, (Parkhurst's Patent Cylinder,) L. W. Abbott, Agent, Conn.	10
1 Grist Mill, R. Sinclair & Co. Balt.	10
1 Corn Sheller, C. H. Drury, Balt.	5
1 Corn Planter, Sinclair & Co., Balt.	5
1 Shingle Machine, Wessel & Eiser, Wilmington,	dip.

Dr. T. D. Hogg exhibited a model of a Beardly's Plaining Machine, which he is about putting in operation in this City.

For the greatest collection of useful machines and implements made at any one factory in the State, the premium of $20 is awarded to John Stafford, of Alamance.

Saddlery, Harness and Leather.

1 Man's Saddle, C. Marable, Williams-	
1 Man's Saddle, Hardy Harriss, Henderson,	dip.
boro',	5
1 Set Buggy Harness, George Fisher, Wake,	5
1 Set Double Harness, Hardy Harriss, Henderson,	dip.
1 Lot Leather, W. F. Hillard, Franklin,	5
1 Side Skirting Leather, Gunn & Bow, Caswell,	dip.
1 Side Sole Leather, O. L. Evans, St. Lawrence,	dip.

Cabinet Work.

6 Parlor Chairs, H. J. Brown, Raleigh,	2.50
1 Dressing Bureau, W. H. Morning, Smithfield,	5
1 Dressing Bureau, H. J. Brown, Raleigh,	dip.
1 Shower Bath, H. W. Howze, Raleigh,	2.50

Boots, Shoes and Hats.

2 Gents Straw Hats, Miss Amanda Lewis, Granville,	3
1 Navy Capt's. Cap, W. R. Dail, Ports'h.	dip
6 Plantation W. Hats, W. R. Dail, Portsmouth,	3
3 Gents Hats, W. B. Dail, Portsmouth,	3
1 pair Pink Gaiters, Mrs. A. Thacker, Williamsboro',	dip.
1 pair childs Opera Boots, C. B. Moore, Raleigh,	dip.
8 Wool Hats, C. B. Andrews, Chatham,	3
1 Childs Hat, Mrs. A. Walsh, Raleigh,	dip.
Childrens Palm Leaf and Straw Hats, Mrs. W. H. Morning, Smithfield,	3
1 Childs Hat, Cornelia Lawrence, Oxford,	dip.
6 Wool Hats, W. B. Dail, Portsmouth,	dip.
1 Pine Bur Hat, Mrs. Mary Bryan, Henderson,	dip.
1 pair Alligator Shoes, T. S. D. McDowell,	dip.
2 pair Gaiters, Mrs. T. A. Mosley, Granville,	dip.
2 pair Walking Shoes, J. F. Taylor,	F. Jour.

Hardware, Stoneware, &c.

Lot of purified Stone Ware, W. W. Craven, Moffits Mills,	3
Lot of Hones, P. S. Benbow, Lindley's Store,	dip
Lot of Augers, M. F. C. Iddings, Mt. Vernon Springs,	3
1 Turpentine Still, Cap, Arm and Worm, Jos. Woltering, Raleigh,	10
1 Case of Hardware, &c., J. Woltering, Raleigh,	5
Lot of Smith's Tools, Stafford, Clark & Dixon, Snow Camp,	dip.
Sash Lock, (Arnold's,) Wm. Cole, ag't, Raleigh,	dip.
1 Rat Trap, Albert Johnson, Raleigh,	dip.
1 Oak Barrel, W. M. Chauncey, Averasboro',	dip.
1 Oak Barrel, R. S. Perry, Raleigh,	dip.
7 Guns and Pistols, J. S. Baker, Fayetteville,	5
1 Rifle, James Brandel, Salem,	dip.
Lot of Tools, L. & W. R. Whitfield, Whitehall,	3

Flour.

1 Bbl Flour, W. F. Collins, Wake, pre.	5
1 Bbl Flour, Jas. Brendel, Salem, 2d pre.	dip.

Tobacco.

Smoking Tobacco, Lash & Bro. Salem, 1st. premium,	3
Cigars, Lash & Bro. Salem, 1st pre.	5
Chewing Tobacco, Y. & E. P. Jones, Yanceyville, 1st premium,	5
Chewing Tobacco, W. & J. D. Long, Yanceyville, 2d premium,	dip.

Dairy, Hams, Honey, &c.

Two Casks of Caswell Co. Cheese, Will. Russell, Caswell, 1st premium,	3
1 Firkin butter, Will. Russell, Caswell, 1st premium,	3
1 Jar Fresh Butter, Mrs. Louisa Holt, 1st premium,	5
1 Jar Fresh Butter, Mrs. W. O. Gregory, 2d premium,	dip.
1 Jar Fresh Butter, Mrs. Martha W, Rowland, 2d premium,	dip.

Loaf Bread and Rolls, Mrs. W. O. Gregory, 1st premium,	dip.
2 Loaves Bread, Mrs. P. C. Cameron, 2d premium,	dip.
4 Bacon Hams, Henry Elliott, 1st pre.	5
1 Specimen Beeswax Bleached, Mrs. Jno. Partridge, Premium,	3

Yarn and Manufactured Goods.

1 Box Tallow Candles, C. C. Rhodes, Wilmington, 1st premium,	3
1 Box Tallow Candles, W. H. Morning, Smithfield,	dip.
1 Lot Sheetings, Cedar Falls Factory, Randolph co., 2d premium,	3
1 Piece of 4-4 Sheeting, J. Newlin & Sons,	dip.
1 Lot Twine, Cedar Falls Factory,	3
3 Bunches Cotton Yarn, G. Newlin & Sons, 1st premium,	3
1 Lot Cotton Yarn, Cedar Falls Factory, Randolph co.,	dip.
3 Pieces Doeskin Jeans, Shields & Nelson, 1st premium,	3
Vesting, 2 Paterns, Mrs. R. A. Shults, Salem, 1st premium,	3
1 Piece Home-made Cloth, Mrs. R. A. Shults, Salem, 1st premium,	3

Household Manufactures.

1 Piece Domestic Overcoating, Miss M. Acock, Forestville,	3
1 Pair of Ladies' Cotton Hose, Miss P. Anderson, Garysburg,	1
1 National Flag, Mrs. R. Judkins, Warrenton,	dip
1 Piece Cotton and Woolen Jeans, Mrs. Rebecca Coxe, Granville,	3
1 Pair Table Cloths, do do	dip
1 Pair Woolen Socks, do do	dip
1 Piece Carpeting, Mrs. Philemon Hawkins, Louisburg,	dip
1 Piece Plaid Linsey, Alex. Cooper, Oxford,	3
1 Domestic Carpet, Mrs. M. S. Burwell, Franklin Co.,	3
1 Pair of Stockings, Mrs. William Baird, Person County,	dip
1 Toilet Valance, Mrs. L. Mitchell, Raleigh,	dip
1 Pair Blankets, Mrs. R. A. Shultz, Salem,	dip
Sheepskin Rug, do do	dip
Masonic Apron, Henry W. Dunkley, Clarkesville, Mecklenburg Co., Va.	dip
1 Bed Valance, Mrs. E. Heathcock, Roxboro',	dip
1 Piece Woolen Negro Cloth, A. J. Myat, Wake,	dip
1 Pair Blankets, Mrs. Mary Marriott, Wake,	dip
1 Pair Silk Socks, Mrs. Lucy Savage, Wake,	3
1 Pair Blankets, Old North State Manufacturing Company,	3
1 Worsted Hearth Rug, Mrs. F. B. Field, Warren,	3
1 Pair Ottomans, Miss N. Johnson, Caswell,	dip
1 Hearth Rug, Mrs. A. Arendell, Louisburg,	dip

Needle Work and Embroidery.

1 Embroidered Crape Dress, Miss Susan J. Maxwell, Petersburg,	3
1 Worked Collar, Miss E. Venable, Brownsville,	3
1 Ottoman cover, Miss L. M. Murphy, Clinton,	3
1 Embroidered Vest, Miss S. E. Rhodes	3
1 Box Needle work, Mrs. M. J. Lucas, Fayetteville,	3
Tapestry, Miss H. Hammerscholdt, Lincolnton,	3
Fire Screen, Miss Lucy F. Bagge, Salem,	3
21 Worsted Mats, Mary E. Royster, Williamsborough,	3
1 Table Cover, Miss E. N. Williams, Oxford,	3
1 Piano cover, Miss H. Ferrel, Halifax,	3
1 Rug, Miss S. A. Reid, Montgomery,	3
1 Mantle and Cape, Miss L. A. E. Hunt,	3
1 Divan cover, Mrs. A. E. Mosely, Brownsville,	3
Largest and best variety fancy work, Clinton Institute, Sampson county,	3
2 pair Ladies' Gaiters, Mrs. A. E. Mosely, Brownsville,	3
Fine needle work, Miss A. F. Dupree, Wilmington,	3
2 Fancy Chairs, Miss Sallie Hinton, Ral.	3
2 Knit Collars, Miss Slade, Raleigh,	3
1 child's Sack and dress, Mrs. A. E. Williams, Raleigh,	dip
1 cape and handkerchief, Mrs. S. A. Eaton, Granville,	dip
1 Emb. table cover, Fanny A. Perry, Franklinton,	dip
1 Piano cover, Annie Winston, Franklinton,	dip
1 Lamp mat, Sally J. S. Reavis, Gran.	dip
1 Worked Collar, S. A. Phillips, Clinton,	dip
1 Ottoman cover, Charlotte Beaman, do.	dip
1 Watch Receiver, B. H. McIntyre, do.	dip
1 Worsted Ottoman, Mrs. Luke C. Graves, Clinton,	dip
1 Collar, Euphemia Nixon, do	dip

1 pair Cuffs, M. A. Holton, do	dip
1 Ottoman cover, Mary Hunter, do	dip
1 Eb. Handkerchief, R. T. Middleton, do	dip
1 do Miss Holton, do	dip
1 Piano cover, Charlotte Beaman, do	dip
1 Embroidered Handkerchief and 2 collars, Miss S. A. Partridge, Raleigh,	dip
1 Child's frock Mantelet and Sack, Mrs. R. A. Hamilton, Granville,	dip
1 Silk Mantelet, Mrs. Mary Roan, Ral.	dip
3 Worked collars, Mrs. Mary A. Payne, Lexington,	dip
1 Infant's dress, E. B. Deming, Fayetteville,	dip
2 Ottoman covers, M. & E. L. Piper, Raleigh,	dip
1 Ladies Collar, E. Robinson, Wilmington,	dip
1 Band, needle work, Mary St. C. Cooke, Raleigh,	dip
1 Lamp mat, Miss Ella Moses, Raleigh,	dip
2 Head Dresses, Mrs. Irena S. Moses, Raleigh,	dip
1 White Bonnet, Miss Edith A. Vernon, Yanceyville,	dip
Child's Sack, Dress and Pantaletts, Mrs. Elijah Graves, Yanceyville,	dip
1 Piece Worsted Work, Miss H. Murphy, Cumberland,	dip
3 Pieces Worsted Work, Miss M. Black, Cumberland,	dip
1 Emb. Ottoman cover, Matilda Conner, Yanceyville,	dip
1 Fire Screen, Lucy A. Bagge, Salem,	dip
1 Tettin Collar, Mrs. John Smith, Johnson	dip
1 Lamp Mat, Mrs. A. C. Harris, Henderson,	dip
1 Emb. Cape, Miss M. E. Colburn, Ral.	dip
1 Worked Dress, Miss Jane Carmalt, "	dip
1 Table Cover, Mary Jane Thompson, Fayetteville,	dip
1 Child's Dress, Mrs. E. A. Jones, Henderson,	dip
1 do Susan A. Tate, Franklin,	dip
1 pair Mats, Miss H. Harding, Raleigh,	dip
1 Emb. Cape, Cornelia Lawrence, Oxford,	dip
Undersleeves, Handkerchiefs, &c. Ann Walton, Henderson,	dip
1 pair Undersleaves, Mrs. W. H. Hughes, Granville,	dip
1 Piano Cover, Miss Virginia Landis, Oxford,	dip
1 Emb. Ottoman Cover, Mary L. Haughton, Pittsboro',	dip
1 Emb. Ottoman cover, M. C. Haughton, Pittsboro',	dip
1 Emb. Skirt, M. A. Haughton, Pittsboro,	dip
1 Em. Table Cover, do do	dip
1 do M. L. Deming, do	dip
1 Infant's Dress, Mrs. L. J. Haughton, Pittsboro',	dip
1 Muslin Dress, S. N. Ruffin, Alamance,	dip
Needle Work, Ellen A. Peace, Granville,	dip
1 Child's Dress, Mrs. Wm. Baird, Person,	dip
Emb. dress and sack, Miss E. Freeman, Raleigh,	dip
1 child's cape, Mrs. I. Procter, Raleigh,	dip
1 emb. collar, Miss A. H. Kearney, Warren,	dip
1 Needle Work Band, Mrs. Mary Graves, Caswell,	dip
1 pair emb. Ottomans, Mrs. Nash, 71 years of age, Orange,	dip
Emb. h'd'k'f, cap and lace work, Mrs. T. P. Devereux, Raleigh,	dip
1 Band needle work, Mrs. Dr. John Arrington, Warren,	dip
1 Bird and flower piece, Mary DeCarteret, Raleigh,	dip
1 Worked Robe, Miss Ann K. Kearney, Warren,	dip
1 Table cover, Mrs. M. T. Harriss, Bladen,	dip
1 Silk H'd'f, Mrs. Lucy Savage, Raleigh,	dip

Crochet Work, Counterpanes and Quilts.

1 Crochet Tidy, of thread, Miss Maria E. Cooke, Raleigh, 1st premium,	5
Tea set of Crochet Mats, Miss S. Turner, Oakland, 2nd premium,	dip
1 Transfer Quilt, Mrs. John D. Fain, Warrenton,	3
1 Transfer Quilt, Mrs. W. H. Haywood, Raleigh,	dip
1 Patch Work Quilt, Miss Lucinda Briggs, Raleigh,	
1 Patch work quilt, Mrs. Wm. B. Crews, Granville,	dip
1 Tufted Quilt, Mrs. W. K. Kearney, Warrenton,	3
1 Tufted Quilt, Mrs. N. Turner, Oakl'd.	dip
1 Silk Quilt, Mrs. K. Rayner, Hertford,	3
1 do Mrs. W. H. Oliver, Craven,	dip
Worsted Counterpanes, Mrs. Philemon Hawkins, Louisburg,	3.
Worsted Counterpanes, Miss E. F. Cox, Granville,	dip
1 Moss Counterpane, Mrs. E. Mitchell, Warrenton,	3
1 White Counterpane, Mrs. L. H. Hunter, Brinkleyville,	3
1 Knitted Counterpane, Miss Willie Hinton & sister, Johnston,	3
1 Embroidered counterpane, Mrs. Bass, Raleigh,	3

Paper, Printing, &c.

8 Specimens of Book Printing, Office of Southern Weekly Post, Raleigh, 1st prem.	3

2 Specimens of Book Printing, Jas. W. Chadwick, Raleigh, 2nd premium, dip

Specimens Printing in colors, office of Southern Weekly Post, Raleigh, 3

Specimens Printing in Gold, do dip

Specimens Rule and Figure Work, do dip

Specimens Card Printing, do 3

Specimens Printing for the Blind, office of Southern Weekly Post, [deserves great credit,] ·dip

Specimens Card Printing in colors, Jno. Nichols, an apprentice in office of S. W. P. very fine, worthy of commendation, 3

Specimens Book Binding, T. H. Tillinghast, Fayetteville, 1st premium, 3

Specimens Book Binding, J. H. DeCarteret & Son, Raleigh, 2d premium, dip

Specimen of Newspaper, S. W. Post, in colors, Raleigh, dip

Paintings.

"Rip Van Winkle," O. P. Copeland, Raleigh, 1st premium, $15

Grecian Painting, Miss Mattie Groat, Warrenton, 2d premium, 5

Landscape Painting, Miss A. Hilliard, Patapsco Inst., Maryland, dip

Landscape Painting, Miss Lucy McGee, Greensboro', dip

N. E. Snow Storm, Miss Lucy McGee, Greensboro', dip

5 portraits, O. P. Copeland, Raleigh, dip

Works of Art and Taste.

1 Family Hair Wreath and Leather-work Frame, Mrs. Wm. D. Cooke, Raleigh, 3

1 Fruit-Piece, Mrs. Luke C. Graves, Clinton, 3

1 Papier mache Port Folio, Miss O. A. Burke, Warrenton, 3

1 Papier mache Piece, Miss Mary Huntley, Clinton, dip

1 bunch Feather Flowers, Mrs. R. A. Shultz, Salem, 3

2 plumes, Mrs. E. A. Jordan, Sunbury, dip

1 bonnet and hat, [Mohair,] Mrs. Cunningham, Salisbury, 3

1 Hair Wreath, [domestic] Mrs. R. A. Shultz, Salem, 3

1 Leather Frame, [domestic] Mrs. S. A. Burke, Warrenton. 3

Wax Flowers, Mrs. E. B. W. Graves, Warrenton, 1st premium, 3

Wax Flowers, Miss Laura E. Newkirk, Clinton, 2d premium, dip

Wax Flowers, Miss Caroline M. Pew, Clinton, dip

do Miss Mary E. Ireland, do dip

Basket Pincushion, Annie Walsh, Ral. dip

1 Knitting Pocket, Mrs. M. B. Roan, Yanceyville, dip

Case of Cameos, Mrs. Dr. Mason, Raleigh, 3

Fine specimens of Confectionaries, Antonio, Pizzini, Raleigh, 3

Leather Key Basket, J. M. Spraggins, Ral. dip

Miscellaneous.

1 Block Soap Stone, White Soap Stone Co., Pharr's Mills, dip

Box Gold Ore, A. B. Stith, Raleigh, dip

Artificial Teeth, Gold Plate, Dr. Carr, Wilmington; also, artificial teeth with continuous gums, 5

Dentists Drill, Dr. Caison, Goldsboro' dip

Copper Ore, Gardner Mine, Davidson, dip

1-2 doz. Brooms, W.D. Cooke, Raleigh, 3

Model Schooner, [Jas. Cassidy, builder,] T. J. Norcom, Wilmington, dip & 3

1 pair Felt Saddle Blankets, C. B. Andrews, Chatham, dip

1 Tobacco Press, C. H. Richmond ,Milton, 10

Wines.

1 doz. bot. Catawba Wines, D. M. Lewis, 3

Trotting Match.

Sorrel Horse, J. B. Askew, Fayetteville, 1st premium, 10

Horse, Charles, W. H. Holleman, Raleigh, 2nd premium, 5

The Committee on Trotting Match in single harness for a Silver Cup, awarded to D. McDaniel of Nash, a Silver Cup worth $10.

Ploughing Match.

To Joseph H. Gooch, Granville, first premium for his improved wedge and twist two-horse plow and plowing, 10

To W. B. Williams & Co., Warren, second premium fer 2d best two-horse plow and plowing, 5

Unloading Corn from a four horse Waggon.

The Committee appointed for that purpose, beg leave to bestow high commendation upon a simple, cheap, and rapid mode of unloading Corn in the Shuck, put into execution by Needham Price, of Wake County. By this contrivance, a four horse load of Corn can be unloaded in one minute by the driver passing his waggon load under a cross beam, louping a rope over the hook of a suspended chain, and then driving forward the length of the waggon, and the whole load is drawn out.

The Committee can readily value this most simple labor-saving invention when they consider that an open shed in the homestead with a beam of timber and projecting wooden pins, to which to attach a cord, will enable the driver to unload a four horse waggon, sooner than a dozen able hands could possibly. Five yards and a half of Gunny or other strong Cotton Bagging, with a piece of scantling with length to rest on and across the front part of the waggon rail, at one end of this cloth, and two inches in diameter, and another piece at the other end of the same diameter and length, the width of the bottom of the bed, and both well sewed to each end of the cloth, and ropes of suitable length fastened to each end of these pieces, forming loops in the middle of the ropes, one loop to be attached to a hook or pin above, and the other to rest in the bottom end of the waggon bed, is all that is necessary. The Bagging or canvass is placed in the bottom of the waggon bed, loaded upon; the waggon is driven under the hook; the hind gate taken off; the loop in the rope in back end placed over the end of the coupling pole of the waggon, and the waggon driven forward until the canvass lifts all the corn out of the waggon.

The exceeding simplicity of the whole affair makes it even difficult to describe. No premium to award being at the option of the Committee, they recommend to the Committee on Discretionary Premiums the conferring a Diploma as a mark of high approbation.

Mr. W. R. Palmer, formerly of North Carolina, exhibited a Rotary Flail for threshing grain, which deserves the highest commendation; but not having been properly entered no award of premium was made and consequently it does not appear in the premium list of Agricultural Implements.

E. A. CRUDUP, Ch. Ex. Com.

A DESIRABLE RESIDENCE FOR SALE.—The subscriber offers for sale her place of residence in Wake Co., N. C., situated Five miles west of Raleigh, immediately on the Central Railroad. The dwelling is a very large and convenient one, handsomely situated.—The out-houses are good, consisting of the Printing Office buildings, Kitchen, Ice-house, Barn, Stables, &c., &c.—There is a well of excellent water, with a chain pump, Also a great variety of Fruit trees, Grape Vines, &c., &c.

The Tract of Land contains 130 acres, 60 acres of which is cleared and susceptible of a high state of improvement: some 20 acres being good meadow land. Other land, if wanted, may be purchased, adjoining.

In consideration of its healthful and convenient location and many valuable improvements, it is in every respect desirable as a place of residence.

Any persons wishing to purchase are invited to call and examine the premises for themselves at as early a day as practicable. G. MEREDITH.

October, 1854. 7—tf.

DEBURG'S No. 1.

SUPER PHOSPHATE OF LIME.

THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity. from one Bag to any number of Tons. Price, when one ton and over is taken, $45,00 per 2,000 lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

BORUM & FISHER,
Sole Agents,
Norfolk, Va.

NORTH CAROLINA INSTITUTION FOR THE *Deaf and Dumb and the Blind.*—The Sessions of this Institution will hereafter commence on the First day of September of each year, and continue ten months.

This change has been made in order to bring the vacations into the months of July and August, which, on account of the heat of that season, are less adapted to study than the other months. It also brings the Commencement of the School to the season when the Sheriffs of the different counties are coming in to make their returns, thus affording a good opportunity for parents to send their children.

The following are the Officers in the Intellectual Department of this Institution.

WM D. COOKE, M. A., PRINCIPAL.

J. A. WADDELL, M. D.,
REV. H. HARDIE,
GEO. E. KETCHAM,
CHARLES M. GROW.
} Professors and Teachers.

☞ Applications for admission should be made to the Principal.

Raleigh, August 14, 1854 tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance six copies for $5; twelve copies for $10; thirty copies for $20.

ADVERTISEMENTS.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

For analysis of soils,	$5 00
Writing out analysis,	5 00

JOHN F. TOMPKINS, M. D.

A CARD.

JAMES M. TOWLES, General Agent for the sale of Agricultural Implements, and Farming Utensils, &c.

N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

WM. ALLSTON GOURDIN,
Factor and Commission Merchant,
NO. 73 EAST-BAY,
CHARLESTON, S. C.,

IS prepared to make liberal advances on Consignments of Rice, Cotton, Corn, Sugar, Flour, Grain, Hay, &c.

Agent for "Genuine Peruvian Guano" for the States of South Carolina, North Carolina, Georgia, Alabama and Tennessee. Also, Agent for Baltimore and Southern Packet Co.'s Steam-ships.

November, 1853. 8---

WM. H. TAPPEY. WM. C. LUMSDEN

TAPPEY & LUMSDEN,
Iron and Brass Founders and Machinists,
Opposite Jarratt's Tavern and Southern Railroad Depot,
PETERSBURG, VA.
(*Cash paid for old Copper and Brass.*)

RAILROAD CARS, Axles, Wheels Self-Oiling Boxes, &c.; Tobacco Presses, Mills, Cotton Ploughs, and Knives; Cast and Wrought Railing; Steam Engines, Vertical and Circular Saw Mills, Grist Mill Irons of every description, Shafting and all kinds of Machinery, Wagon Boxes, Bells, &c., &c.

November, 1853. 8---

M. H. Jones

VOL. 3. RALEIGH, N. C., DECEMBER, 1854. NO. 9.

JOHN F. TOMPKINS, M. D., Editor.

From the American Farmer.

AN ESSAY

On the Culture and Management of Tobacco,

BY W. W. W. BOWIE,

Of Prince George County, Md.

In the preparation of this Essay, the author admits frankly that he has availed himself of the experience of many successful Planters, whose practice and example he had endeavored for years to follow; and he has also availed himself of much of the matter in his former Essays on this subject, having seen since they were written, nothing to change his views therein expressed in regard to the culture of this great staple of Maryland. And he would state merely by way of giving force and character to his suggestions, that it is well known in the community in which he lives, that from his boyhood he has been familiar with the growing and general management of Tobacco; and for fifteen years part has himself extensively cultivated it. With these preliminary remarks he will endeavor to give a plain, succinct and intelligible account of that culture and management of Tobacco which he deems the best system for planters to pursue, keeping in view successively the points desired to be touched upon, as set forth in the terms of the liberal offer of Mr. Jose Joachim DeArietta, in the American Farmer for September, 1853.

1st. and 2d.—How to raise the best seed.—What, if any, preparation is to be subjected to?

The earliest and largest plants should be selected for seed. One hundred plants will give over a peck of seed. Twice as many should be turned out as may be needed, so that after they are in full flower or bloom, the plants of the whole may be chosen and the rest broken off. If the grower wishes to raise fine, light, yellow tobacco, he ought to select plants that grow quick, with leaves small stemmed and far apart in the stalk, such as the "*Pear Tree*" Tobacco. If he wishes to raise heavy crops to the acre and most of it curing a fine red, he should select such plants as are broad and long leaved, set close together on the stalk with large stems and thick leaf, such as the "*Wilson*" or the "*Broad-leaf Thick-set,*" or like kinds. These tobaccoes, if ripe, will cure a pretty red and salmon-color, and in the sample will be like kid, pliant and glossy, smooth and soft to the touch, if properly managed. After the seed pods have fully developed themselves it should be *pruned* and then when the pods have turned brown and begin to open, each head should be cut off and hung up to dry under cover until it can be rubbed out; then pass it through a fine seive so as to get the seed clean, and it requires no further preparation. The seed should be kept perfectly dry. By *pruning*, is meant the lopping off all the small, defective or indifferent pods that are found on the head, leaving only a sufficient number of well formed, large pods to mature, so that the whole strength of the plant may be concentrated in perfecting them alone.

3d. and 4th.—*The nursery and the best way to insure its existence.*

A rich loam is the soil for Tobacco plants.—The spot selected for a bed, should be the south-side of a gentle elevation as well protected as possible by woods or shrubbery—a warm spot—mellow ground, perfectly pulverized. After it has been thoroughly burned with bush, dig deep, and continue to dig, rake and chop until every clod, root and stone be removed, then level and pulverize nicely with the rake. When about half prepared, sow over it Guano, at the rate of 600 lbs. to the acre, or *fine* ground bones at the rate of twenty bushels to the acre, or half the quantity mixed with well rotted stable manure. By the after preparation this becomes well intermixed with the soil. Mix one gill of seed for every ten yards square, with a gallon of dry plaster or dry sifted ashes, to every half pint of seed, and sow it regularly, in the same manner that gardeners sow small seeds, only with a heavier hand. Roll with a hand roller or tramp with the feet. If the bed be sown early in the season, it ought to be covered with leafless bush, but it is not necessary to cover them after the middle of March, in this climate. Tobacco beds may be sown at any time during winter if the ground be not frozen or two wet. It is safest to sow it at intervals, whenever the land is in good order for working—never sow unless the land be in good order, for the work will be thrown away, if the land be too moist, or be not perfectly prepared. The beds must be kept free from grass and weeds, until they are no longer needed, and the grass must be picked out a sprig at a time by the fingers. It is a tedious operation, therefore planters should be very careful not to use any manures on their beds which have grass seeds or weeds in them. After the plants are up, they should receive a top-dressing once every week or ten days, of manure sown broadcast by the hand; this should be a compost composed in the following proportions:

1-2 bushel of unleached ashes,
1 bushel of fresh virgin wood's earth,
4 lbs. of pulverized sulphur,
1 2 gallon of plaster,
1 quart of salt dissolved in two gallons of liquid manure from the barn-yard—the whole well intermixed.

Let a large quantity be prepared in the autumn previous, and put up in barrels, out of the weather, for use when wanted. If possible the plants should stand in the bed from half an inch to one inch apart, and if they are too thick, they may be thinned while *picking* the grass out, or they may be raked out, when they have become generally the size of a five or ten cent piece. The *rake* proper for the purpose should be a small common rake, with iron teeth, very sharp, curved at the points, and three inches long; teeth flat, and three-eighths of an inch wide, and set half an inch apart. The plants that are pulled out by the rake must be taken off the bed, or they will take again.

5th. and 6th—*Method of transplanting.—Preparation of the soil—description of Implements, &c.*

The soil best adapted to the growth of Tobacco is light friable soil, or what is commonly called a sandy loam, not too flat, but rolling, undulating land—not liable to drown in excessive rains. New land is far better than old.

The land intended for Tobacco should be well ploughed early in the spring, taking care to turn the turf completely under, and subsoiling any portion that may be very stiff, or likely to hold water near the surface, and let the land be well harrowed soon after the breaking it up; it should then be kept clean, light and well pulverised, by occasional working with cultivators and large harrows, so as not to disturb the turf beneath the surface. When the plants are of good size for transplanting, and the ground in good order for their reception, the land or so much as can be planted in a "season," (that is, while wet) should be "scraped," which is done by running parallel furrows with a small seeding plow, (the Prouty and Mears' No. 2 1-2 for instance, two and a half or three feet apart, then crossing these again at right angles, preserving the same distance, which leaves the ground divided in chekes or squares of two and a half or three feet each. The hoes are then put to work and the hill is formed by drawing the two front angles of the square into the hollow or middle and then smoothed off on top so as to form a broad flat hill about six inches high, then patted with one blow of the hoe to compress the centre of the hill, and cause a slight depression so as to collect water about the plant. The first fine rain thereafter, the plants should be removed from the seed beds, and one carefully planted in each hill. A brisk man can plant 10,000 plants per day. The smaller or weaker hands, with baskets filled with plants, precede the planters and drop the plants on the hills.

In drawing the plants from the bed, and in carrying them to the ground, great care ought to be taken not to bruise or mash them. They should be put in baskets or barrels, if hauled in carts, so that not many will be in a heap together. The plants should never be planted deeper than when they stood in the bed. Planting is performed by taking the plant dropt on the hill with the left hand, while the root is straitened with the right, and one finger of the right hand makes a hole in the centre of the hill, and the root of the plant inserted with the left hand; the dirt is well closed about the roots by pressing the forefinger and thumb of the right hand on each side of the plant, taking care to close the earth well about the bottom of the roots.—If sticks be used to plant with they should be short, and the planter particular not to make the holes too deep. The plants should be very carefully planted, for if the roots be put in bent up, or crooked, the plant may live, but will never flourish, and perhaps when too late to replant, it will die, and then all the labor will have been of no avail. In three or four days it may be wed out, that is, the hoes are passed near the plants, and the hard crust formed on the hills pulled away, and the edges of the hills pulled down in the furrows; this is easily done if performed soon after the planting, but if delayed, and the ground gets grassy it will be found to be a very troublesome operation. After the weeding out, put a table-spoonful of plaster of Paris, (or a gill of plaster and ashes unleached, well mixed together would be preferable) upon each hill. In a few days—say a week or a less time, run a small plow through it, going twice in a row. This is a delicate operation, and requires a steady horse and a skillful ploughman, for without great care the plants will be knocked up or be killed by the working. The bar of the plow should be run next to the plants. In a week after, the "*Tobacco Cultivator*," or *single shovel*, must be used. These implements are well made by R. Sinclair, Jr. & Co., and other Agricultural Implement makers of Baltimore.—Either implement is valuable at this stage of the crop. Once in a row is often enough for the shovel cultivator to pass. The crop can now be made with their use, by working the tobacco once a week or ten days, for four or five weeks, going each time across the former working. Any grass growing near the plants should be pulled out by hand. As soon as the tobacco has become too large to work without injuring the leaves by the swingle-tree, the hand hoes should pass through it, drawing earth to the plants where required, and level ridges caused by the cultivator or shovel. Let this hoeing be well done, and the crop wants no more working.—Care should be taken to leave the land as level as possible, for level culture is generally the best. As soon as it blossoms, or the buds are fairly out, and the seed plants selected, all the rest should be "topt" as soon as the blossom is fairly formed. Do not wait for it to bloom, for the hornblowers will be attracted by the flowers. It should be topt down to the leaves that are six inches long, if early in the season, but if late, top still lower. If the season be favorable, in two weeks after a plant has been topt, it will be fit for "cutting," yet it will not suffer by standing longer in the fields. From this stage of the crop until it is in the house, it is a source of great solicitude to the Planter. He is fearful of storms, frost and worms, his worst enemy—they come now in crowds. The "suckers" are to be pulled off and "ground leaves" saved. The "suckers" ought to be pulled off as soon as they get two or three inches long; they spring out abundantly from each leaf where it is set off the stalk. "Ground-leaves" are those leaves at the bottom of the plant which become dry on the stalk, and ought to be gathered early in the morning when they will not crumble.

When it is ripe enough for the house, it is cut off close to the ground by turning up the bottom leaves and striking with a sharp tobacco knife, formed of an old scythe—such as are used for cutting corn, or some persons have knives made, like butchers' cleavers. Let it lay on the ground for a short time to "*fall*" or wilt, and then pick it up in shoulder turns, and carry it to the tobacco house, when it may be put away in three different modes, by "*peging*," "*spearing*" and by "*splitting*." "*Peging*" Tobacco is the neatest and best mode, yet the slowest. It is done by driving little pegs, about six inches long, and half an inch or less square, into the stalk, and these pegs are driven in with a small mallet in a slanting direction, so as to hook on the sticks in the house. It is then put on a "*horse*," which by a rope fixed to one corner, is pulled up in the house by hand, or by block and teakle, and then hung on the sticks, which are regulated to proper distances. A "*tobacco horse*" is nothing more than three small sticks nailed together so as to form a triangle, each side being three or four feet long. *Spearing* is the plan I pursue, because it is the quickest plan.—A rough block with a hole morticed in it, and a fork inserted a few inches from the hole, for the tobacco stick to rest upon, one end being in the hole, with a spear on the other end of the stick, is all the apparatus required. The plant is then with both hands run over the spear, and thus strung upon the stick—which when full is taken to the house and hung up at once. There are round spears, and dart-spears, like in form to the Indian arrow heads,—hollow of course to admit the sharpened end of the stick.

"*Splitting*" tobacco is admired by many who contend that makes it cure quicker and brighter, certainly quicker, and less likely to *house burn*, or injure from too thick hanging. The mode is easily pursued by simply splitting the stalk standing in the field, with a knife made for the purpose. The stalk is split from the top to a few inches of the bottom, some days before cutting the tobacco for housing—care should be taken not to break the leaves while splitting.—The knife may be fully described by saying it is a miniature spade. It can be easily made, inserting a part of an old scythe blade in a cleft oak handle, with its edges bevelled off to the blade, so that it will act as a wedge to the descending knife. After it has been split, cut down and carried to the house, it is straddled on the sticks, which are placed in forks for greater convenience in stringing it on the sticks—and is then hung up in the house—*Tobacco sticks*, are small round sticks, or are split out like laths, one or one and a half inches square, usually larger at one end than the other, and ought to be eight or ten inches longer than the joists of the tobacco house are wide apart.

If the tobacco is of good size, six or seven plants are enough on a four foot stick. When first hung up, the sticks should be a foot or fifteen inches apart. As the tobacco cures they may be pushed up closer. After the house is filled and has yellowed, some planters put large fires under it, which dries it at once, increasing its brightness somewhat, but "firing" imparts a smoke-smell and taste which is objectionable to buyers. The better plan is to have sufficient house-room, and hang it thin in houses not too large, which have windows and doors so as to admit light and dry air, and by closing them in bad weather, exclude hard winds, and the dampness, by which it is materially injured in color and otherwise damaged. After becoming well cured, the stem of the leaf being from sap, the first mild damp spell of weather, it will become pliant and then may be stript off the stalk. It is first pulled or taken off the sticks and laid in piles, then the leaves are stript off and tied in bundles, of about one fifth or one sixth of a pound each. The bundle is formed by wrapping a leaf around the head or upper part of the handful of leaves, for about four inches, and tucking the end of the leaf in the middle of the bundle by way of confining it. There ought, if the quality of the crop will permit, be four sorts of tobacco, "*yellow*," "*bright*," "*dull*," and "*second*." When the tobacco is taken down the "*cullers*" take each plant and pull off the defecthe annual swarms of educated youth from its industrious hive would carry with them to the remotest parts, Mount Vernon would renew throughout the world its benignant influence, put on the aspect of that glory which lies now buried in its bosom, and become again a source of joy to the immortal mind it nursed, if the unbodied soul can take an interest in sublunary things once dear to it. For the living surely, and to all future generations of the living, it would be pregnant with blessings, and not only to those deriving immediate instruction in the first and best business of life, but all the pilgrims of every nation on earth that may, through successive ages, visit the sepulchre of the apostle of liberty, would carry away with its patriotic inspiration a sense of the value of tuition in the art which creates personal independence and imparts the vigor of mind and body essential to the maintenance of political freedom.

The principal professor of the Smithsonian Institution (Mr. Henry) has been consulted in reference to its becoming the nucleus of the agricultural establishment here proposed. He does not consider the funds at its disposal more than sufficient to accomplish what he considers the main object in which it is now engaged, and to add to the assistance it now gives incidentally to agricultural instruction, the advantage of a course of annual lectures on the subject. With the aid of the appropriation which Congress makes every session for the benefit of agriculture, in the shape of Patent Office reports, &c., &c., the whole system of instruction contemplated for the agricultural school might be carried out through the agency of the Smithsonian Institution; its regents becoming the board of agriculture, to which Washington looked as the instrument of so much good, and Mount Vernon as the model farm (worked by the students like those of Europe conducted on a similar plan) supporting them by its products.

The purchase of the farm, and the construction of tenements for the superintendent and scholars, would require considerable expenditure in the beginning, but the establishment, permanently founded, under proper management, could preserve itself, provide amply for the subsistence of the number of scholars engaged in the cultivation of the farm and receiving the instruction of the Smithsonian Institution. As a property appurtenant to the latter, the question of jurisdiction of the general government over the soil, as clashing with that of Virginia, would be avoided. It would be a farm and a school, like other farms and schools in Virginia, subject to the general laws of the State, and to such rules of the Institution as the parties entering it would make obligatory by their own consent.

If, however, unforseen difficulties should be presented to the acquisition and application of it to the object proposed, there are many farms finely situated in the District of Columbia suitable for the design if it shall be the pleasure of Congress to adopt it. And here, (if Congress has exerted a constitutional power in providing a hospital for the insane of the District,) it may, if in its wisdom it deems fit, found a district school extending its benefits to the same of the whole country.

The undersigned committee respectfully submit this memorial, believing that they represent truly, not only the wishes and interests of the Maryland State Agricultural Society, but many others of the agricultural associations which a zeal for the improvement of husbandry has given birth to in every State of the Union. The opinion generally prevails that Congress may organize a system at the capital for the diffusion of agricultural knowledge, associated with that already established for kindred objects, and that it might be made, under wise and prudent legislation, auxiliary to the aims of every State agricultural school or associatian in the Union, and thus advance the greatest interest of the country, not merely by its own direct action, but by the impulse it would give to co-operating systems in the several States.

JAS. T. EARLE,
ODEN BOWIE,
CLEMENT HILL,
F. P. BLAIR,
GEO. W. HUGHES.

Fall Plowing for Spring Crops.

The fact mentioned in the Rural, last week, that Mr. Emmons obtained over fifty bushels of barley per acre, on land plowed in the fall, and simply cultivated and harrowed without plowing in the spring, proves at least, that in some cases good crops can be so obtained. If it were found to be the case, as a general thing, much advantage would accrue from the practice. The fall is the least busy portion of the farmers' working season, while the spring is the busiest. If any work, therefore, which we are accustomed to do in the spring, can be performed in the fall, without injury to the following crop, it cannot but be of advantage to do it in the leisure, rather than the busy season of the year. Barley is well known to delight in a warm, well pulverized, active soil, and if fall plowing, as a substitute for spring plowing, answers for barley, it would be very likely to answer for potatoes, oats, corn, and other spring crops. We fear, however, as a general thing, land plowed in the fall is not in as good a condition for putting in spring crops as though it had been plowed in the spring.

It is true that English farmers plow one-fourth of all their arable land in the fall. They do this to expose it as much as possible to the meliorating effects of frost; but we are under no such necessity; our land gets frozen enough without being fall plowed or thrown up in ridges for exposure. Then again, though, according to American travelers at least, it rains in England all the time, yet it seldom rains hard enough to wash the land. John Bull knows nothing of those tremendous rains which deluge our farmers late in the fall and early in the spring. If he did, we believe fall plowing, on sandy soil, would not be so popular with the old gentleman. Again, nearly every farm in England is thoroughly underdrained, and the rain which on an undrained field runs off in surface ditches, carrying in solution and suspension large quantities of the elements of plants washed out of the soil, on an underdrained farm, filters slowly through the soil to the drains beneath, leaving in the soil all the ammonia it brought with it from the clouds. We cannot cite the practice of English farmers, therefore, as an evidence that fall plowing for spring crops is a good practice in America.

A clay soil, properly underdrained, would doubtless be much the better for a good, deep plowing in the fall. But we think it would also need another plowing in the spring. On sandy, undrained soils, fall plowing may be a good substitute for spring plowing, so far as the mechanical nature of the soil is concerned, but we cannot but think that the fall and spring rains would wash out a considerable quantity of the soluble and most valuable portion of the soil, and more, if fall plowed, than if the ground were left undisturbed, compact, and smooth.

There are those, however, who hold a contrarary opinion, and we believe fall plowing for spring crops is becoming every year more general. And certainly no stronger evidence in favor of any practice can be adduced than the fact that it is gradually extending among observing, practical farmers. We should like to have the experience, the experiments, the observed facts—not the theories—of our readers on this point.—*New England Farmer.*

The value of deep plowing has been illustrated this year to an extraordinary degree. The land thus plowed resists the drought with great effect, and the farm of Professor Mapes, in New Jersey, is given as an instance. Not a single plant seems to have suffered for want of moisture. This prolific farm, bending under its fruits, whilst all the neighboring farms have had their crops parched in the fields, is given as a striking proof of the value of sub-soil plowing in a dry season. But how are our farmers to know that the season will be dry when they plow?

A New Substitute for the Potato.

In the garden of the Horticultural Society at Chiswick are growing two plants of a Chinese yam, which is expected to prove an excellent substitute for the potato. They have been obtained from the *Jardin des Plantes* at Paris, where they have been made the subject of experiments that leave no doubt that it will become a plant of real importance in cultivation. "If," says M. Decaisne, who has paid much attention to matters of this kind, "a new plant has a chance of becoming useful in rural economy, it must fulfill certain conditions, in the absence of which its cultivation cannot be profitable. In the first place, it must have been domesticated in some measure, and must suit the climate; moreover, it must in a few months go through all the stages of development, so as not to interfere with the ordinary and regular course of cropping; and, finally, its produce must have a market value in one form or another.

"If the plant is intended for the food of man, it is also indispensable that it shall not offend the tastes or the culinary habits of the persons among whom it is introduced. To this may be added that almost all the old perennial plants of the kitchen garden have been abandoned in favor of annuals, wherever the latter could be found with similar properties. Thus, *lathyrus tuberosus*, *sedum telephium*, &c., have given way before potatoes, spinach, and the like.—Now, the Chinese yam satisfies every one of these conditions. It has been domestic from time immemorial, it is perfectly hardy in this climate (Paris,) its root is bulky, rich in nutritive matter, eatable when raw, easily cooked, either by boiling or roasting, and then having no other taste than that of flour (*fecule.*) It is as much a ready-made bread as the potato, and it is better than the *batatas*, or sweet potato.—Horticulturists should, therefore, provide themselves with the new arrival, and try experiments with it in the different climates and soils of France. If they bring to their task, which is of great public importance, the requisite amount of perseverance and intelligence I have a firm belief that the potato yam (*igname batatas*) will, like its predecessor the potato make many a fortune, and more especially alleviate the distress of the lower classes of the people."

Such is M. Decaisne's account of this new food plant, which is now in actual cultivation at Chiswick; and, judging from the size of the set from which one of the plants had sprung, it is evident that the tubers have all the requisites for profitable cultivation. One has been planted under glass, the other in the open air, and at present both appear to be thriving equally well. The species has been called *dioscorea batatas*, or the potato yam. It is a climbing plant, bearing considerable resemblance to our common black bryony, and when it is considered how nearly that plant is related to the yams, the probability of our new comer becoming naturalized among us receives support. Whether, however, it realizes all that the French say of it or not, the trial of it in this country cannot prove otherwise than interesting and worthy of the society which has had the honor of introducing it. Let us hope, however, that it may indeed prove what it is professed to be—"a good substitute for the potato," and in all respects equal to that valuable esculent.

SOUTHERN APPLES.—Speaking of two varieties lately sent him by Mr. Leseur, of Colparchee, Monroe county, Robert Nelson, says:

"I must here urge on a subject of some importance to the South.

"What could be more profitable than such an orchard in any of the southern States bordering on the Atlantic? These and similar southern varieties could easily be shipped to the northern markets, and arrive there in all their beauty and flavor. Surely, the northern fruit-growers would be surprised, and all lovers of fruit be glad to pay a very remunerating price. The south would have the market in its own hand without competition for at least six weeks! Just think of that! The north has too long been supplying us with apples. Let us make the tide roll back again. The pride as well as the prospect of profit ought to arouse the South to such enterprise."—*Georgia Citizen.*

The "Romanite"(?) Apple, figured and described by Mr. Nelson, in a late number of the Citizen, bear little or no resemblance to the "Shockley."

Clay is now proved to be the best means of retaining manure. Sewerage water filtered through it comes out destitute of smell, and what is better, minus the valuable salts of ammonia, alkaline, phosphates, and other soluble fertilizers, which are retained by the clay.

THE FARMER'S JOURNAL.

RALEIGH, N. C., DECEMBER, 1854.

☞ *All letters on business or subscriptions, must be addressed to W. D. Cooke, who alone is authorized to receive money on account of the Journal, and no name will be entered upon the books unless the money accompanies the subscription. Communications for the Journal should be addressed to Dr. Jno. F. Tompkins, Raleigh, N. C.*

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THE PEA CROP, &c.

The cultivation of the pea crop in the South is regarded by practical farmers as being as great an improver of lands as the clover in the North. The cultivation to any great extent of the pea as a green crop for turning under in the fall, began, we think, with the great agriculturist, Edmund Ruffin, of Va., who, with the cultivation of the pea, and the use of marl, has been a benefactor to the farmers of his State. By referring to the analysis of the pea, it will be seen that it contains a very large per cent of lime, and a much greater amount is to be found in the stalk or vine than in any other part. This being the case it may be readily seen how important it is, where lime does not exist in the soil to a considerable extent, that in order that a good pea crop may be raised, it should be supplied. And it is also apparent that in as much as the larger portion of the lime is required in the growth of the vine, the farmer should be careful that the stock do not destroy the vine, for it is in this way that so many wornout lands are to be seen over North Carolina at this time. In the turning under of the pea crop, it must be recollected that it is only the addition of vegetable matter that is furnished to the soil, for there is only the same mineral matter returned that is taken from the soil in the growth of the crop. And it should be a question of much importance from the character of the land whether or not peas be sown as a fertilizer. If there be a want of vegetable or organic matter in the soil, this deficiency can be better and sooner supplied in this country by the growth of peas than in any other way. But if the soil be of the character of what is called vegetable mould, where already there is an excess of vegetable matter, it would be folly to sow peas upon such land with a view of improving it. Upon most high land farms, which are wornout, the farmer may without reference to analysis, use the pea as a green crop, for it is generally the case that much lands in an exhausted condition are deficient in organic or vegetable matter.—Some farmers pursue the plan of sowing peas at the last plowing of the corn crop in the summer, with a view of turning them under in the fall when they sow the same field in wheat. This is not so good a plan as the sowing of the peas broad-cast upon a field upon which wheat, or oats, have been grown during the summer. In this case the peas should be sown as soon as the wheat or oats are reaped, when there will be time sufficient, as our climate now is, for the pea to mature sufficiently for this purpose. Upon this field the next year corn, cotton, or tobacco, tive, trashy, ground and worm eaten leaves that are next to the big or butt end of the stalk, and then throw the plant to the next person, who strips off all the *bright* leaves (and if there be any yellow leaves, he pulls them off, and lays them aside, until he collects enough to make a bundle) and throws the plant to the next, who takes off all the rest, being the "*dull*," and the respective strippers as they get leaves enough in hand, tie up the bundles and throw them in seperate piles for convenience in bulking. The cullers strip nothing but "*seconds*;" stripping should never be done in drying or harsh weather, unless the tobacco is bulked up almost as fast as it is stripped. The better plan is to take down no more than you can tie up in a few hours. If the planter chooses, he can take down a large quantity and put it in bulk, stalks and all, cover it with tobacco sticks, and it will keep for several days, so that no matter how the weather may be, he can strip out of bulk. However, this is a bad, wasteful way. Tobacco should not be moist or "*high*" as it is termed, when put in the stalk-bulk, for it will get warm, the leaves stick to the stalk, get a bad smell and change color, beside if left too long it will rot. It requires judgment and neatness to bulk tobacco. Two logs should be laid parallel to each other, about thirty inches apart, and the space between them filled with sticks for the purpose of keeping the tobacco free from dampness of the ground. The bundles are then taken one at a time, spread out and smoothed down, which is most conveniently done by putting it against the breast, and stroking the leaves downward smooth, and straight with the right hand. It is then passed, two bundles at a time, to the man bulking. He takes them, lays them down and presses them with his hands; they are laid two at a time in a straight line—the broad part of the bundles slightly projecting over the next two, and two rows of bundles are put in a "*bulk*," both rows carried on together, the heads being on the outside, and the tails just lapping one over the other in regular succession. The bulk when carried up to a convenient height, should have a few sticks laid on the top to keep it in place. It must often be examined, and if getting warm, it ought to be immediately changed and laid down in another bulk of less height, and not pressed as it is laid down: this is called "*wind rowing*;" being loose and open it admits the air between the rows of bundles, hence the term. The next process is to condition it for "*packing*." The *bright yellow* and *second* tobacco will "*condition*" generally best in such bulks as I have described, but the "dull" ought to be hung up, by standing the bundles on sticks, before it is put in bulk, as soon, in fact, as it is stript. If the *bright* or *seconds* do not dry thoroughly in the bulks, that also should be hung up to become completely dry. Properly to hang up tobacco to condition, small sized sticks should be procured and each one made very smooth, and kept expressly for that purpose. After it has once been perfectly dry—so dry that the heads are easily knocked off, and the shoulders of the bundles upon being pressed crack like pipe-steams, it should be taken down, or if in bulk, removed, the first soft spell of weather, as soon as it is soft and yielding enough, as it will become, to handle without crumbling or breaking, and it must be put in four, six or eight rowed bulks of any convenient length and height—the higher the better,—laid down close, so that as little of the leaf or shoulders as possible shall be exposed on the outside of the bulks. When completed, put sticks evenly over it, and then pile up logs of wood on the sticks, so as to heavily weigh it down.—Here it will keep sweet and in nice order for packing at any time, no matter how the weather may be, if it was conditioned properly, will not change a particle while in the condition bulk.—Mild, soft pleasant weather is the best to pack tobacco in. The best tobacco prize is one known as "Page's Prize," much improved by F. Grieb, of Upper Marlbro', Prince George's Co., Md.—It is cheap, expeditious in its working, being easily taken down and put up, may with convenience be moved from house to house.

As to the size of the hogshead, the best size is the ultimatum of the law of Md., fifty two inches long and forty inches in the head. Almost any wood will answer to saw into hogshead stuff, the best of course, is that which is strong, but weighs light, as gum or poplar. No hogshead ought to weigh over 100 lbs., and staves drawn from oak, make the best, though they are too costly.

It ought to have been observed, that while putting the tobacco in condition bulk, all bundles that were soft or had a bad smell, should have been laid aside to be rendered afterwards sweet and dry by a few hours exposure to the sun. This precaution must be observed in packing. In putting the tobacco in the hogshead, he who packs, takes off his shoes and gets inside the hogshead, and has an assistant to hand him the tobacco. He lays one bundle at a time, in a circle, heads outward, beginning in the centre, and each circle is extended until the outer circle touches the staves of the hogshead; a single row of bundles is then laid all around the edge, on heads of the outer circle, then across the hogshead in parallel rows, the middle being always raised a little higher than the outer edge. This is called a "course," and these courses are continued until the hogshead be filled. The packer presses with his knees each bundle as he lays it down, and often stands on his feet and presses heavily, cautiously all round, and across, so as get in as much as possible.—One receiving hogshead, and two false hogsheads, five feet long, making fourteen feet four inches of tobacco, will weigh from nine hundred to one thousand pounds, if in good order, and well hand-packed. This concludes the almost ceaseless round of labor, necessary to prepare for market this important staple of our country.

7th. What kind of manure the best?

Ashes at the rate of 100 bushels per acre, sown broad-cast just when the land is harrowed the second time, is unquestionably the best manure for Tobacco. Experience fully proves this fact.

8. Mode of applying it—and the consequences of its application as compared with soil not manured. It has just been stated how it is best to be applied, and its effects are so striking that there is no comparison between the land that is ashed, and the soil not dressed with ashes. New land for two crops however, would have the crop but slightly improved by ashes, if it was naturally fertile and newly cleared up.

9th and 10th. Different manures, such as Guano, Bone-dust, &c., compared with one another, with regard to Tobacco, and their influence on the vegetation of the plants, and on the insects which attack it.

Guano acts well on tobacco on most soils, but is of no use on rich tobacco soils—it is an useless expense. On very poor, stiff or light sandy soils, it is exceedingly valuable, and will well repay the outlay. When used in the seed bed, it causes the plants to grow quickly, and in a wet season would soon force the plants beyond the harm of the fly. It certainly, too, if mixed with wood's earth, or rich dirt, and sown broad-cast over the young plants, would aid by forcing the plants and by its odor and other qualities, in keeping off to a great extent the fly. Bone-dust is too slow in its action to help the tobacco crop much. Potash is a most active and powerful fertilizer for this crop. 100 lbs. of plaster of Paris, and 200 pounds of Potash well intermixed, or ground together, and applied to the acre just before the hills are stuck up, has been found to materially benefit the tobacco crop. The result of this application, has been found to surprise the most dubious and unbelieving. It is an admirable dressing for tobacco land.

Wooden charcoal applied thickly as a top-dressing to the plants in the bed, while moist with dew, is valuable, because the black surface would attract the rays of the sun, and cause by the increased heat, a greater growth of the plants, and it has been found effective in arresting the ravages of the fly.

11th. Best, cheapest and most effectual way either to destroy those insects, if they should make their appearance, or to avoid their appearing altogether. The insects that molest the tobacco plants, are the Turnip fly, the tobacco fly, and the grub and tobacco worm. The tobacco fly is much smaller than the turnip fly, and of a lighter color. They both attack the plant in its tender state, and often destroy millions of plants. The only remedies that past experience has ever found of any avail, have been such as have al ready been pointed out. They do not trouble beds that are covered up with brush, but brush can only be allowed a certain time upon the beds, and when it is removed, the plants should receive very frequent dustings of very finely pulverized manure, or even sand, especially when the weather is cool, and dry with harsh winds. It is in such weather the fly delights to do its work of destruction. The grub is a small short brown worm, found in all old, rich land, and cuts off the young plants in the hill, just above ground below the bud, hence it is called by planters the "cut-worm." Five bushels of refuse salt, or ten would be better, sown broadcast over each acre, when the land was laid off for the hills, would effectually prevent their molestations, beside it would be a great help to the tobacco in its young state, giving it a quick and strong start, though its effects would not last through the season. The great pest is the tobacco worm. This worm is hatched on the tobacco leaf, grows very rapidly, and in a few days arrives at its full age or maturity, when instinct prompts it to bury itself some eight or ten inches under ground. In this self-made grave, it undergoes a change and makes its appearance as a sort of butterfly, which planters call "Horn-blower." These horn-blowers appear about the middle of May, and may be seen every morning and evening, flying about among the flowers and blossoming weeds, taking especial delight in the flowers of the Jamestown weed. They deposit their eggs on the tobacco leaf—laying myriads, not in clusters but seperately, and seldom more than two or four eggs on a leaf. In about a fortnight these eggs produce a little worm so small, it is hardly to be seen by the naked eye, and yet it eats a hole in the leaf as though a large needle had punctured it; in a few days it has grown to be as large as a man's finger, and has eaten pounds of green tobacco. It is constantly eating and digesting its food, growing in size, and discharging its excrement, which is hard and round and black, resembling in form and color "Lee's Anti-bilious Pills." It is a fact no less true than wonderful, that this little worm, never reaching over two ounces in weight, will eat and digest in fifteen days, from two to three pounds of green tobacco. The larger ones make considerable noise while eating. They ought to be destroyed as soon as they appear, or they will destroy the crop.—Turkeys aid greatly the planter in killing these worms. They eat great quantities, and kill many they do not eat. It is a cherished amusement with the turkey, to kill tobacco worms, and they grow fond of the sport. Each year there are two "gluts" of worms. The first attacks the tobacco, when about one-fourth grown, and the second when it is nearly ripe and ready housing. The first can readily be subdued with a good supply of turkeys, and if then they are effectually destroyed, the second glut can be easily managed, for it is a well settled fact, that a large portion of the first glut reappear the same year, as horn-blowers, and breed myriads. When the second army of worms comes on, the tobacco is generally so large that turkeys are of little use. They must then be killed by hand. Begin in time, start when they are being hatched—keep up a strict watch, going over the whole field, plant by plant, kill all that are to be seen, and destroy the eggs, and by constant attention, each morning and evening to this business alone, with the whole force of the farm, they may be prevented from doing much harm. When they disappear the second time, there is no more cause of trouble, for that year at any rate. They might be in a few years wholly exterminated by concert and united action on the part of all tobacco planters, and in this manner. About the first of December, after hard frosts have set in, plough up every field where tobacco had been grown that were in the chrysalis state, would be thus turned up and be destroyed by the frosts, snow and rain, and birds.—Very early in March, go about the tobacco houses and dig up the floors, scrape under the sills, and plough deeply for some distance, around the houses, and destroy every one that could be seen. Make it also a point to reward every negro, old and young, liberally, for each horn-flower's head throughout the whole year. In 1848 one gentleman offered one cent for every horn-blower that his negroes should catch and bring to him. He allowed them one hour before sunset, to stop work as to catch blowers. The first evening they brought him in 1,650!! Another paid to his peop'e during the season, fifteen or twenty dollars, at only one fourth of a cent per head. Another farmer in digging about his tobacco house for the manure which had accumulated there, says he destroyed over a bushel of worms in the chrysalis state. The same year a planter gathered sixteen bushels of worms from 40,000 plants, and did not get over one half then. That year great attention was paid to the destruction of the blower and worms, in the forest of P. George's County, and for several years after there were comparatively but few worms. If this system was regularly pursued by every planter, in a few years this dreadful enemy of the plant, would be entirely exterminated, or at least rendered harmless.

13th. Best method by horse-hoes or any other, to keep the field clean from weeds. Has been fully discussed under the paragraphs 5th and 6th.

14th. The planting of Tobacco at different distances compared with one another.

Three feet each way, under all circumstances, is most generally the best distance. It is wholly against my experience, to plant tobacco in drills, and work it only one way. On very rich land it will grow very large, as close as two feet each way—and two feet nine inches will produce large tobacco, but all these close plantings are objectionable; because it becomes troublesome to work, is liable to be broken and torn, and the worms cannot be properly got rid of, when it is so close together; for these reasons I much prefer three feet each way, or at any rate 3x2 feet 6 inches. The closer it is planted, the finer will be the texture and quality as to color.—This is my experience and observation of the crops of others.

15th. Different operations which it is subjected to before cutting. See them fully explained, under headings 5th and 6th.

16th, 17th and 18th. Taking in the crops—the different operations to which it is subjected before being sent to market;—and the best mode of packing, have all been treated of, under 5th and 6th sections or paragraphs of this Essay.

19th. Preparations or substances used for the preservation of the leaf, before and after being ready for market. No. other preparation as herein before stated, and the hogshead is the only substance required to preserve the leaf for ages, if it was well conditioned when packed into it, provided it be kept out of the wet weather, and free from water.

20th. Effect of watering, or artificial Irrigation, on the development and quality of the tobacco plant requires frequent and light showers, or cool nights and heavy dews. Too much water as effectually kills it, as too much heat and drought. Judicious watering of the seed-bed is often very happy in its effects, and sometimes positively necessary. The plants could always be forced by this process, but the danger is that if forced too much, they become over-grown before there falls sufficient rain to enable the planter to set them in the hills. In a dry season what is termed watering is often done, and succeeds well. This is done, by watering a part of the seed-bed, so that the plants may be drawn easily without breaking the roots, or brusing the leaves or buds. The hills being newly made, about two hours before sun-set, the laborers go into the field with the plants—one or two pass over the ground with stout clubs, striking one end in the centre of each hill, about two inches deep, and large enough to hold half a pint of water, others follow with buckets and cans, or gourds, and fill quickly the holes with water, others follow and drop the plants, which are directly planted by the planters. The water should have time to settle in the earth before the plants are stuck. Some prefer to do this work early in the morning before the sun is an hour high. To insure their living, it would be well to have grass, such as clover, cut early in the morning when moist with dew, and drop a handful on each plant, planted the evening before or the same morning. This keeps the ground moist, and shades the plant until it takes root, and before any bad effect could be produced upon the plant by lying upon it. the grass or clover dry up as the plant graduall y increased in vigor, and in a few days it could scarcely be seen, while by its protective shading, the plants would be green and growing, and capable of resisting the scorching rays of the sun. Where water is convenient to the tobacco field, the hands would after a little practice average four or five hundred plants each evening. Thus ten hands could plant twenty-five or thirty thousand weekly; but the water must be near and easily obtained. In such situations where general irrigation of the field could be made, there is no doubt but the best effects would be produced. If properly irrigated, not too much water, but frequent applications when the earth was dry and wanting rain, the tobacco would grow quick and mature early, two things that invariably produce a fine article, if the weather should prove favorable for the curing.

Here closes this humble effort. If it prove beneficial to the grower of tobacco, the author will feel happy, and rejoice that therein he finds his highest reward.

November 24, 1853.

From the American Farmer.

In the Senate of the United States, Mr. Morton made the following report:

The Committee on Agriculture, to whom was referred the memorial of the Maryland State Agricultural Society, submit the following report:

That they have had under consideration the said memorial, (which, it appears, has been adopted by the United States Agricultural Society, recently convened in the city of Washington,) proposing the establishment of an agricultural school and experimental farm at Mount Vernon, under the auspices of the general government, and approve the design of the memorialists, and ask for it the favorable consideration of the Senate.

The United States, while they lead the civilization of the age in almost every other useful art, are far in the rear of the rival States of Europe in that which relates to husbandry. England, Scotland, and Ireland, France, Germany, and even the minor States of the continent, have agricultural schools, with experimental farms attached, to blend science and practical skill in forming a model system of cultivation. A systematic education is deemed indispensable to improve the art of husbandry, as it is found essential to impart progress in every other pursuit of civilized life. We have no schools of agriculture, and receive only from report and very remote example the impulse which has led to renewed efforts in this country, to imitate the cultivation abroad that has, in some degree, redeemed it from the rudeness which threatened to condemn us to perpetual inferiority.

The longing in the public mind for scientific teaching and experimental proof and example, which contrast the improvement of Europe so strongly with ours, is so generally manifested that Congress has attempted to gratify it, by publishing annually, at great expense, gleanings on agricultural subjects, gathered by the Commissioner of Patents, and by scattering seeds of various kinds among the farmers of the country. This effort on the part of Congress, although well received, evidently does not satisfy its constituents. The innumerable agricultural societies springing up everywhere, and the multitude of agricultural journals, all express the general desire in favor of some head and system, to make a model school of instruction, which will beget similar institutions in the States, through those taught in it. The contribution Congress now makes to advance the husbandry of the nation is evidently not properly directed; for it leaves the public unsatisfied and restless in regard to the aid afforded by government to advance the great art upon which its wealth and power mainly depend. The committee think, whatever Congress attempts to do in a matter of such magnitude, it ought to do well. It exerts its power liberally to promote and protect the commerce of the country. Military and naval schools are the small part of the machinery devoted to that object. Manufactures have had millions on millions lavished, in indirect bounties, to establish them. Our Patent Office, and its appendages, constitute a government establishment to advance, by the large bonus derived through patent rights on every good invention in mechanics, the interest of the class engaged in that species of national industry. Copy-rights provide remuneration to stimilate literary labor.—Yet the government does nothing to embody intelligence and give it direction to assist the efforts of individuals in the greatest business of life, and that which should be the greatest care of government.

The committee would recommend the memorial of the State Agricultural Society of Maryland, supported by that of the United States, to the favorable consideration of the Senate, as presenting a plan well calculated to fill, what all admit to be a great void amid the institutions of the country. It recommends an appropriation to be placed at the disposal of the President, and applied at his discretion, to purchase Mount Vernon, to be converted into an experimental farm connected with an agricultural school, and both to be attached either to the Smithsonian Institution or Patent Office, and to receive from the controling authority of the one with which it may be asciated, an organization in analogy, (so far as difference in objects allows,) like that of the West Point Academy, under the War Department; the plan when matured to be submitted to Congress for modification and adoption.

The committee, in further elucidation of its views, submit the said memorial, which contains the recommendations of Washington upon the subject, as a part of this report, and ask that it be printed herewith.

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MEMORIAL.

To the Congress of the United States of America:

The Maryland State Agricultural Society, (through its committee, appointed at its last general meeting,) beg leave to submit the veiws entertained by it in relation to the improvement of agriculture, and to solicit for the plan proposed in the memorial presented in its behalf the favorable consideration of Congress.

The Smithsonian Institution at Washington, has been spoken of as a seminary, around which might spring up that national board or school of agriculture, with an experimental farm annexed, contemplated by Washington. During his presidency he favored such a plan as a great desideratum to assist our progress.

"The National Board of Agriculture in Great Britain," he says, "I have considered one of the most valuable institutions of modern times;" and in reply to a letter of Baron Poelnitz, suggesting the establishing of a farm under public patronage. for the purpose of increasing and extending agricultural knowledge, he expresses his solicitude upon the subject, but adds, "I know not whether I can, with propriety, do any more at present than what I have done. I have brought the subject, in my speech at the opening of the present session of Congress, before the national legislature."

This was the first message. After eight years' administration of the government he renewed the subject; and in his last message to Congress near its close, impresses the subject nearest his heart with zealous argument, (seldom used in his messages,) evincing the deep solicitude he felt in the success of his recommendation.

"It will not be doubted that, with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this task becomes more apparent and renders the cultivation of the soil more and more an object of public patronage.—Institutions for promoting it grow up. supported by the public purse; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums and small quantity pecuniary aids to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the results, everywhere, of individual skill and observation, and spreading them thence over the whole nation. Exprience, accordingly, has shown that they are very cheap instruments of immense national benefits.

"I have heretofore proposed to the consideration of Congress the expediency of establishing a national university, and also a military academy. The desirableness of both these institutions has constantly increased with every new view I have taken of the subject, that I cannot omit the opportunity of, once for all, recalling your attention to them.

"The assembly to which I address myself is too enlightened not to be fully sensible how much a flourishing state of the arts and sciences contributes to national prosperity and reputation. True, it is that our country, much to its honor, contains many seminaries of learning, highly respectable and useful; but the funds upon which they rest are too narrow to command the ablest professors in the different departments of liberal knowledge for the institution contemplated, though they would be excellent auxiliaries.

"Amongst the motives to such an institution, the assimilation of the principles, opinions and manners of our countrymen, by the common education of a portion of our youth from every quarter, well deserves attention. The more homogeneous our citizens can be made in these particulars, the greater will be our prospect of permanent union, &c."

Washington's heart was at that time, when at the loftiest point of his elevation, still looking back to the unpretending pursuit from which he had risen to the command of armies, confederacies, and finally the great modern model republic. He looked back to the soil, and that honest industry which made it teem with blessings. He looked back to the productive masses that make up the States and nation, and felt it to be the duty of those placed by them in power to use that power to facilitate and perfect that creative industry which is the foundation of the prosperity of the whole country. A national board or school of agriculture, with all the advantages which books and science could bring; with all the assistance which philosophical apparatus and experimental tests, applied directly to the soil, upon the largest scale, could lend; with all the opportunities which the cultivation of a considerable domain could afford, for the introduction of that tuition and discipline necessary to form a practical skill and thoroughly systematized views, in the relation to the various modes of farming, was what he contemplated.

A national school, with all these essential requisites, was the great object which Washington had at heart at the close of his life.

It is fortunate at this time that Congress, in acting on the bequest of another far-seeing philanthropist of a foreign land, has organized an institute as a national instrument of instruction, which can, without starting any constitutional cavil, be employed in imparting agricultural knowledge, not only among our own countrymen, but among men of all countries. The express injunction of Smithson's will, which Congress, as a trustee, has undertaken to execute, is "to diffuse knowledge among men." Can it be pretended that agricultural knowledge is not that sort of knowledge which the benevolent friend of human progress wished to disseminate? The design of the utilitarian, who sought, in transferring his wealth to a new country, where an energetic people were scattered over a rich but rude domain, to dedicate it to the progress of his race, in pursuits to which they were called by surrounding circumstances, and which were most likely to promote their prosperity, would not exclude from the knowledge he provided for them that on which their welfare most depended. Could he have meant, in providing for the diffusion of knowledge among men, to provide only for lecture-rooms for savans—for instruments to repeat for them philosophical experiments which had been taught them in schools, and which would bring within the circle benefitted some dozens of learned professors in a nation? Or could the giver of the Smithson fund, intending "to diffuse knowledge among men," consider his aim accomplished by gathering up a great library for the enjoyment of the literati who might seek in Washington food for their studious appetites? On the contrary, the very phrase of the will, which enjoins "a diffusion of knowledge among men," would seem to exclude those who claim to be already learned in all the abstract sciences, so that the bequest might be made universally useful by dispensing knowledge among the masses of men who have not the time nor the means to devote to abstract scholarship—among that great body of men who make up the nation, and to which the mind of man instantly recurs and contradistinguishes from the small class of learned professors and philosophical students.

The knowledge that Smithson would diffuse among men must be that which would be useful to the many, not the few. He could not hope to diffuse among men generally the science of Newton, Sir Humphrey Davy, of La Place—in a word, the abstract science of all the schools, ancient and modern. The knowledge he wished to diffuse would be the grand results of their labors, as "coming home to the bosoms and business of men." And what subject it is more important to bring the lights of science to illustrate and improve, than the great leading one of agriculture, which is the substratum of every useful art, of all the prosperity of the country? The farmers of the United States have, then, a claim, the strongest claim, that the Smithson fund shall, at least in part, be devoted to the purpose of increasing that knowledge, which is of all others most useful to the world.

It has been suggested that a happy union might be effected between that experimental system for the improvement of farming which the last hours of Washington's life were busied in maturing, and the institution which has since been founded in the city of Washington under the bequest of the philanthropist Smithson, "to increase and diffuse knowledge among men."—The farmer of Mount Vernon concentrated all his views to make the beginning of the new century (1800) an era from whence a progressive improvement should start on his estate, that might teach the lesson of restoring worn-out lands and give the impulse to the indefinite increase of fertility, beyond that of the original condition of our soils.

This system he learned from his European correspondence, was, with the aid of capital, the lights of science and of practical skill, associated together by boards of agriculture and farming schools, producing such results in Europe. His plans were laid and drawn out in elaborate written instructions to the manager of his estate, and he was on his horse from day to day, riding from farm to farm, to second, by supervision and oral explanations, the designs he contemplated, when he took cold from exposure in a snow storm on the 12th of December. It produced quinsy in the course of the night of the 12th and closed his career on the 14th in death.—Thus the great intellect was quenched when practically employed in the endeavor to make Mount Vernon realize some portion of the vast scheme of agricultural improvement which his last message so impressively urged on Congress. What a tribute would it be to his memory if Congress should now take up his design, frustrated by the hand of death, and make it immortal by selecting Mount Vernon as the seat of an agricultural school and model farm, uniting it, as a branch to the Smithsonian Institute—the board of regents forming the board of agriculture which Washington contemplated, and the learned professors bringing all the lights of science, aided by experiments in the lecture-room and on the farm, to increase agricultural knowledge and provide for its diffusion. What a monument would Mount Vernon become over the dust of its glorious founder—the founder of the republic—when redeemed again from wilderness and desolation by the power and genius of his country! It would be seen surpassing the finest cultivation of the most perfect model farms of Europe, as our country surpasses Europe in every useful enterprise, exciting its emulation, worked by the hands of scholars coming from the several States of the Union, repaid for their labors by the nurture, the energy and the practical skill acquired from it, and by the science taught in the lecture-room of the associated Smithsonian Institution—by the inspirations of patriotism caught at the shrine of Washington, and the emulation to tread in his footsteps, on the very spot that fostered his youth, and in the occupation which fitted him to lead the nation's destinies, it would in effect be the restoration of a patriarchal place and its elevating influences to the children of the Father of his country.

Watched over and cherished by the representatives of the several States and of the people, and by the chief magistrate of the nation, all interested to hallow the spot, to make it teem with improvements, which imitation would spread in the surrounding country, and which ded dollars be paid John Hutchins for services rendered under the direction of the committee of arrangements, which was carried.

Dr. Wm. R. Holt, moved that $400 be paid Mr. E. A. Crudup to reimburse him for expenses incurred in the discharge of his duties, which was carried.

Col. L. W. Humphey moved that the thanks of the Society be tendered to those ladies who have assisted in decorating and attending Floral and Reception Halls, and also that the thanks of the Society be tendered to the citizens of Raleigh and its vicinity for their hospitality and attention to the visitors during the Fair, which was unanimously carried.

Mr. Rayner moved that the thanks of the North Carolina State Agricultural Society are due and are hereby tendered to R. H. Smith, Esq., late President of the Society, for the ability, zeal, and urbanity with which he has discharged the duties of his office during the past year, and that he has our best wishes for his prosperity and happiness.

On motion the Society adjourned *sine die.*

J. F. TOMPKINS,
Rec. Secretary.

Communication.

For the Farmer's Journal.

TO YOUNG FARMRES.

Mr. Editor: It seems natural, and is right, that a son, particularly one who is not educated, should borrow his ideas from his parents, and those who raises him. But, we are all liable to err, and as the science of agriculture is advancing, he who follows in the footsteps of his father and grandfather, in farming, will be left behind and be outstripped by those who keep pace with the advancement of the science. Then, as free and intelligent men, we should follow the good examples set us by the preceding generations, and continue their work, and hand it down to posterity improved. We should not accept an inheritance from them except under the condition of improving it.

It becomes, then, young men, to study well the science, the plans, the ways and doings of our parents, and of the preceding generations; to understand well their characters and principles; the subjects they discussed, and disputed about, and the conclusions which they came to; and the results which they transmitted to us of the true and productive, as well as of the false and unproductive, in order that, with due reflection, and understanding, we may embrace the good and reject the bad.

Commencing at a new era, in the history and philosophy of the science of agriculture, we young men of the country, must awake up and begin, as it were, at the beginning of the *old science regenerated* and *made anew*, and keep up with its advancement, and aid it all we can.—Were the young farmers of the present generation to adopt the plans, principles, and modes of of culture of our fathers and forefathers, what would be the consequence? They would not advance the science of agriculture one step, but plow on in the same old beaten tract of destruction and devastation, and live and die poor, and hand down to posterity, an inheritance of sterile lands, and incorrect principles, scarcely worth receiving, and gain the censure of their children for their labors and pains. These facts cannot be denied.

Every one knows the force of example, and how deeply rooted old customs and principles become fixed in the minds of those who neither think nor study, nor write. The sayings and doings of the father become those of their children and grandchildren, from generation to generation.

When we see a young man with courage and fortitude enough to dare to launch out on the stage of life on his "own hook," and adopts a course of his own in any profession, different from that taught him by the example of his parents, what do we hear? Either that he is a stubborn cracked-brained fool, or else a wild wilful, reckless fellow who is going to ruin as fast as time and money can carry him. These epithets, and the frowns and censure of the world, deter many a young farmer from making a fortune, a reputation and a character for himself. If he dares to try an experiment or advance a new idea in agriculture, (only new to the ignorant.) he hears the cry of *humbug* and *book farming.*

I say then, to young farmers study well the past and present generation of farmers, and the old and new science of agriculture, and select that which is good and true, and reject that which is bad and false.

Follow the examples of those who succeed by practicing the precepts of sciences, and not the example of those who succeed by chance and accident: for the former will succeed the oftener, because, his system is founded on something substantial, on fixed and well tested principles, and not on accident and chance. A cause will always produce an effect, and when we work, work to produce a certain effect. Too many men read agricultural works for past time; to have it said, they are familiar with agricultural literature. They too often show their knowledge, (or rather ignorance) of it, by criticising the ideas of others, and of the truths they do not understand, and have never practiced. Such men do the cause of agriculture, more harm than good; they already *know too much*, and unless they make a better use of their knowledge, they had better keep it to themselves.—A word to the wise is sufficient, says the maxim. I am pleased to learn through your columns, that, there are a couple of young gentlemen, (one of whom I have the honor to know,) in the old North State, who have studied the science of agriculture with the view of improving by it, and of adopting its precepts and principles. Thanks to the cause of agriculture, Messrs. Dancy and Norflet, deserve the gratitude of the people of North Carolina, and of the South, for the noble efforts they are making to advance the science of agriculture in Edgecombe.

I congratulate them, and the young and old men of North Carolina for the laudable efforts of these gentlemen, to make poor land rich: to prove to the people there are virtues in manures, and plenty of time, and materials to make it with, and cultivate an ordinary crop besides; to convince them the truths of the science of agriculture cannot be questioned, and refuted by the would-be-wise-men, who read and criticis, and do their farming, not in the field, but b the fireside.

Yes, they have set an example that the ol and young may follow with profit, and benefi to themselves. Should they not be rewarde with good crops every year, perhaps, it is not their fault; if they have done their duty, do not blame them, and the science of agriculture.—No farmer succeeds every year, and the richest land in the United States, often fails to make good crops. That is the work of the Almighty, over which we have no control. So that, never become discouraged by casualties, but manure on, and work ahead with hope and good will, and you will succeed and be rewarded. No animal or plant, ever came to maturity without food; food it must have or they will dwindle away and die. Don't fear making your land too rich, young farmers. No land is too rich. The richest land in America would be improved by the proper manure. Suppose your land makes ten barrels of corn per acre, and by the addition of manure it will make twenty bushels per acre, are you not benefitted so much the more, and less land will make your corn, and leave more land and labor for other crops.

All the largest crops are made on rich land, and not on poor land, we all know. But it often happens that poor land make larger crops of cotton than rich land generally makes the largest crops of grain. These facts are illustrated in my neighborhood every year, the reasons why, I have not the inclination to state. These facts should not discourage the Carolinians.—Those of us who commence our labors in the forest with the *virgin soil*, should not wear it away and hand it down to our posterity a barren waste. What would we think of a parent who came in possession of a large estate of rich lands, and were to destroy it, and leave his children poor in the possession of poor land.

Would we not censure him for his meanness? We would. Well, some of us have large estates of virgin soil, and for fear, if for no other reason, of the censure of our posterity, let us not wear it way, and die and leave it as a memento of our folly and laziness.

Let us rather improve our talents, and not pend them in idle show and luxuries, and hide our light under the bushel.

N. T. LORSBY.

Forkland, Ala., Sept., 1854.

Miscellaneous.

From the Standard.

Roxboro', Person Co., N. C.,
October 20, 1854.

To his Excellency, David S. Reid:

It may appear paradoxical to maintain that a planter may diminish his crops by the use of fertilizers, still I shall attempt to show that such a result is possible. Theoretically and practically the doctrine is both interesting and important. It is founded upon principles which I have had occasion to state while speaking of manures and fertilizers. The doctrine alluded to is based upon two facts, viz: That each plant requires certain inorganic elements for its growth and perfection of seed, and that the most important of these elements exist in the soil only in smaller proportions. Now a plant, in certain respects, is like an animal. If a young or an old animal is supplied with a large quantity of food its growth is promoted, or its fat accumulates. This is the case if the food contains all the elements of nutrition. It is not the case, however, if one or more of them are wanting.—In the case of a young animal, for example, the milk which is the natural food, contains in its normal condition every element which the system requires; but if the milk should be deficient in phosphate of lime or phosphoric acid, the animal could not grow, or if it did grow by means of a small amount of phosphoric acid or phosphate of lime, the bones would be soft and flexible. But this is not the point I am attempting to prove or elucidate, and the allusion is made merely for the purpose of stating the fact, that in the food of both animals and plants there is *a speciality* which should be remembered by all planters and stock growers. But plants are unlike animals in certain respects; their mouths, for instance, are placed in a magazine of food, but this magazine may contain a rich supply of others; but enough of all the present elements of nutrition and a very scanty supply of others; but enough of all the present to ensure the growth of the plant and perfection of the seed. If now the planter resorts to the use of the mineral fertilizers, as plaster, the result will be for the first two or three years a greater growth of herbage as well as a greater increase of fruit or seed. If this magazine of food (the soil) contains a small quantity only of phosphate of lime, the employment of plaster or sulphate of lime puts the plant in a condition to use and take up a larger amount of phosphate of lime than it could, provided this mineral had not been employed. If this magazine contained phosphate of lime which would have lasted ten years with no fertilizer, it will not last more than five with it. By the use of this fertilizer the root is increased in extent, and, to speak figuratively, the number of mouths formed to take up food is proportionally increased also, and hence, the store house is more rapidly exhausted.

We have now arrived at the point where we can see the consequences which accrue from the use of mineral fertilizers; the elements of food which exist in small quantities only, become exhausted in a short period under this system of cultivation, and as every plant must have every one of the elements of nutrition for the perfection of seed, the time soon comes when seed cannot be perfected for the want of one element. The general effect of such a system of culture is seen at once, and yet the planter may persevere in it, for he saw in the beginning most gratifying results; his crops may be doubled, and in order to keep up, and perhaps attempt to increase the production still more, supplies his favorite fertilizer in greater quantities, though he may have seen after the second and third year that its employment did not turn out so favorably as at first. This result may be attributed to the season, it was too wet or too dry, too hot or too cold. or to any cause but the right one. The neighbors say he has killed his soil by the use of plaster, but the true philosophy is, he has exhausted prematurely and unnecessarily, one of the essential elements of fertility. It is evident enough he can no longer use plaster—he must find out what has become deficient in the soil. There is no such thing as killing a soil or ruining it; it is a simple exhaustion of one or two elements. What those lacking elements are must be found out, and the remedy becomes a simple application or restoration of what has been injudiciously removed. What is true of gypsum is equally true of guano. The proportion of inorganic matter in this variety is much smaller relatively than in the Mexican. It is highly active upon worn out soils, producing heavy crops of the cereals for the first year.—The continued use of this kind of guano alone for a succession of years brings about that condition of the soil I have alluded to, or according to the expressive phrase of planters, the soil is killed. It may be inquired here, if these are the results of plaster and Peruvian guano, what are they good for? I answer they are the preparatives for a good system of husbandry, and are designed to save time. They bring about in one year what would require four or five by the ordinary means, as the use of green crops or even stable manure. The soil is brought at once in a condition to produce, but it is not by a re-application of the same fertilizer, *even guano.*—Now, the planter may use his straw, his clover crop, or his stable manure to keep up the fertility of his soil, and why? It is because these contain a greater variety or number of the elements of food which the plant requires. The intelligent English farmer applies lime largely at once; by this, he obtains a stock in trade to go on—he borrows largely for once, and by it is enabled, if he understands the principles of husbandry, to pay back what he has borrowed.—But he would not think of paying back in lime—that would ruin him; but he is now prepared for the use of the slower or more organic and inorganic fertilizers combined, and by their use he may go on without killing his soil. So, guano is to be used once to save time and prepare the way for less active fertilizers. The vender of this article will tell a different story, for it is a perishable article and must be sold the first season; but the intelligent farmer will find that he can go on successfully by one application and save his fifteen dollars per ton for other purposes.

Most respectfully, yours, &c.,
E. EMMONS,
State Geologist

From the Working Farmer.

Preservation of Fruits and Vegetables for Winter Use.

There are advantages derivable from scientific attainments which are sufficient to compensate for the time and attention bestowed in their acquirement, even though pecuniary or material gain be, literally, the only end for which they are studied. It is certainly necessary for wives and daughters to cultivate an acquaintance with the more poetical accomplishments which serve to grace life, and render the condition of man blessed, but while these are being done, there are other duties which should not be left undone.

The importance of learning some of the great lessons taught in chemistry, and applying them to domestic economy, is every day rendered more apparant. So many of the normal conditions of life are dependent on them, that their deficiency is immediately perceived in any household, by the incomplete development and generally unhealthy aspect of its inmates. There are many improvements in this way which could be suggested, but the limits of this communication forbids it now. There are many simple works on such subjects which might be studied with profit.

While we enjoy the present with its cornucopian supply of good things, we should certainly think of the approaching days of Old Jack Frost, when nature dismantled of her verdure, will quietly repose, till again resuscitated by the genial warmth of a succeeding spring. How grateful then would be the appearance on our tables of some of those choice products of the field of which we have now "enough and to spare!" and yet, any household mother who would take the trouble, could learn to preserve them so as to be used at any future time.

It is a property of all organic substances to ferment or decompose when certain conditions which are essential to that process are present. The most important of these conditions are the presence of heat, moisture, and atmospheric air. In the absence of any of them fermentation would not proceed. If, for instance, one condition, heat, be removed, by exposing the fermentable substance to an atmosphere, the temperature of which is not above the freezing point, it would not decompose, that is, in the sense in which the term is generally accepted. Still, in a few instances, a species of decomposition does really proceed. Some fruits in such situations will seem to preserve all their original qualities, while they have indeed lost that which is most prized, their favor.

Another process is that of drying at a high temperature. Like that above, it has also objectionable points. In France and other contiguous countries where it is most practiced, in many instances, it answers well; but when the articles are taken to very moist countries, such as on the Isthmus of Panama, success is still more limited, as our experience has proved.

By the total exclusion of the atmosphere from contact with the substance, together with another antiseptic condition about to be noted, we know from observation, no impediment to the substance be effectually preserved.

But even in this instance, we have been assured by men, in whose judgment and experience we confide implicitly, that the qualities of some Fruits and Vegetables are not without deterioration.

The tendency of organic matter to decomposition has been discovered to be temporarily suspended by heating to the boiling point.—Every dairymaid is familiar with the fact, that boiling milk daily, she can thereby preserve it for any period. By taking advantage of this circumstance, and also that of excluding atmospheric air, any one can succeed in providing an abundance of fruits and vegetables for winter use.

For this purpose a boiler of adequate capacity is provided. The substance to be preserved being prepared, are put up carefully in wide mouth bottles, the interstices being filled by any suitable liquor provided for the purpose, leaving only sufficient space between the lip of the bottle and its contents as will admit the cork. It would be convenient to place in the boiler a perforated false bottom or shelf, affording a level surface on which the bottles could rest, and thereby also obviating the necessity of their being in too much proximity to the more heated surface of the true bottom. The bottles are then put in along with cold water, which should be within an inch and a half of covering them.—They are then removed one at a time, corked perfectly air tight, and tied or wired down; after which they may be entirely immersed. The boiling is then continued until they are heated to the temperature of 212 degrees throughout, which generally effected in about three hours. The bottles are then removed and sealed down, so as to be rendered more perfectly air-tight. They should not be introduced while cold into boiling water, as the consequent sudden expansion of the glass would cause them to break. Another precaution is further necessary: vegetable color is soon decomposed by light, to provide against which, the bottles should be wrapped in dark paper or packed away in boxes. By this process any one would be provided with the luxuries of summer all the year, and without any appreciable additional outlay.

Let however the experiment be tried, observing directions, which are doubtless simple and easily understood, and let further practice depend on the success of the undertaking.

R. C.

WHAT SHOULD BE THE CHIEF CROPS OF THE SOUTH!

Corn and cotton in the cotton planting States have, by common custom, become the universal crops of extensive cultivation. How far this shift is correct, is not entirely proved by its universality, nor by the prejudices which sustain it in the minds of planters, Indian corn, indigenous to the soil, was perhaps the most convenient and profitable when the country was first settled, and when an abundant and easily prepared crop, to supply the wants of both man and beast, was a requirement of the times. In this relative value, it still is the most valuable crop grown on the virgin soils of the Middle and Southern of the Western States, for it luxuriates upon the vegetable matter abounding in new soil, and with little preparation and indifferent culture, yields large returns for labor bestowed. Such, however, is not the case in the older States, where the cream of the land has been stolen away imperceptibly by the most exhausting system to which tilled soil has ever been subjected; and taking ten years' cropping together, the Indian corn crop is the most uncertain we can plant. It is difficult to grow on any but virgin or alluvial soil, and droughts of summer, except in extraordinary and most favorable seasons, cut it off to ruinous extent. The corn crib is called the store house of the planter in the South, and indeed it is his main dependence.—But this is only because he is not accustomed to interweave other crops with the cultivation of cotton. On improved and well prepared soil, barley and wheat would yield more bushels of grain of more value to the planter than Indian corn. In fact, barley is the most valuable grain which we cultivate at the South. If sown at the proper season, it readily perfects itself from the winter moisture in the earth, and yields heavily. It is fine soiling for all kinds of stock, and comes into harvest in May, a time when a few days can be spared from the cotton crop without detriment to its growth or production. Its grain is so well protected, that it is not liable to be spoilt by exposure to the weather, and it may lie any length of time in the straw, when dryly housed, without being injured. A barley crop sown with guano, cotton seed, or well prepared compost manure, after the cotton crop is gathered in December and January, would come off sufficiently early to sow the stubble down in peas to be turned under in autumn, and the rotation of small grain with this system pursued, would be the best and most efficient mode of improving our lands. It would also be fitted to the economical and easy cultivation of the after cotton crop, by the plowing under of the herbage in the fall, which would be thoroughly decomposed by the next spring.

Barley, gound and mixed with straw, reduced to chaff by a cutting machine, is better food for horses and cattle than any preparation of Indian corn, and to those persons who have not mills, simply soaking the grain in water is a fine preparation for feeding to horses. Swine fatten and keep in condition more easily on barley than on corn. As a conclusive argument in its favor, more barley can be cheaply grown on an acre of improved dry upland, than we can grow of corn. Wheat, sown with guana in like manner after the cotton crop, would come in at a season when the harvesting could be attended to without detriment, and after the cotton crop is laid by, and in the interval between that time and the commencement of picking, the threshing and preparing it for market or the mill could be attended to without hindrance. The middlings, shorts and bran of a large wheat crop all mixed together, would go far to feed the plantation stock, and negroes would relish wheaten bread as a change for the corn bread usually allowed to them.

We would, from these few reasons stated, and many more needless to mention, recommend the reduction of the corn crop to such a degree as would throw all lands not naturally producing Indian corn well, into wheat, barley, rye and oats.

We could then cultivate our titled crops well and easily, and the avenues for system would open for improvement would soon repay for the experiment. We know that these recommendations will be met by all the objections which prejudice and the tyranny of custom engender in those who cleave to old practices and theories, but as they are convictions of true policy, we have no hesitation in making them.—*Southern Agriculturist.*

"FINE PROSPECT FOR HAY."

While riding by a field the other day which looked as rich and green as a New England meadow, we observed to a man sitting on the fence, "You have a fine prospect for hay, neighbor." "Hay! that's cotton, sir," said he, with an emotion that betrayed an excitement which we cared to provoke no further; for we had as soon sport with a rattlesnake in the blind days of August, as a farmer, at this season of the year, badly in the grass. We remember once to have witnessed almost a fight between a couple of neighbors on this vitally delicate matter. Neighbor H—— happening to be a little ahead in his onslaught upon Gen. Greene, came passing along by the field of neighbor D—— and discovered him digging far below the level of the rich green sward that waved around, when H—— called out in a loud tone, Hallo! The man in the field raised himself slowly, and thinking he was called to the fence on a matter of special and important business, with a face artificially pleasant, started, when H—— remarked with a smile of wicked fun, "please don't let the snakes bite me." The momentary gleam which enlivened D——'s face was followed by a thunder cloud of looks, and nothing but the advantage of distance saved H—— from a hoe helve examination of his cranium; for the muttering echoes of poor D——'s voice came rolling over, mixed with profane accents, and diabolical insinuations. H—— vamosed, declaring it was the last time that he would ever joke a man hopelessly struggling with the grass. In this latitude, just now, poking sticks at a yellow jacket's nest would be as refreshing.

All jesting aside, we have never known so poor a prospect for cotton in this region. In some instances the fields are clean and well worked, but the cotton is diminutive in size, and sickly in appearance. We have seen some fields so foul, that it was almost impossible to tell what had been planted. In our limited observations, we are convinced that the best looking cotton, is on new ground. Cotton blooms are generally common with us about 1st of July, but we have seen no stalk as yet, that can make a flower by that time; unless like Jonas' gourd, it can run up in a few nights.

All this backwardness is attributable to the cold, wet weather that we have had almost constantly since the planting season commenced.—When there was a warm spell, it was raining so that plows could not run to say advantage; so, between the cold and the rain, the cotton crop is very unpromising.

Corn is generally good; Oats remarkably fine; Wheat (which has been harvested) "sorry."

The low flat lands, this year, have suffered particularly. Thoroughly saturated all the time, and often overflowed, the crops on them are small and sickly, while the weeds and grass are luxuriant and rank.

A week or two of dry hot weather will make a wonderful change in our agricultural prospects, but we have no idea that any sort of seasons could bring the cotton to more than an average crop.—*Hernando* (*Miss.*) *Advance.*

Apples as Food for Stock.

In some sections of the country the apple crop may make up for the deficiency in corn and potatoes. Apples are plentiful and of uncommon fairness. Good varieties, of long-keeping qualities, will bring the producer remunerating prices. But in some instances autumn fruit may be so abundant as to make it expedient to feed it to live stock on the farm, rather than to dispose of it in market at very low rates. And in all cases there will be more or less—as windfalls, or such as from defects are unsaleable—which may be fed to animals with advantage. Cider being now ignored to a great degree, the use of apples for making meat may be expected to increase.

As swine-food, apples have long been known to possss considerable value, though sweet ones have been chiefly preferred for this purpose.—But this preference appears to have been given without sufficient grounds. When swine are fed with apples in a raw state, they will generally indicate their choice of sweet over sour ones by first eating the former. This will be more particularly the case if the apples are in an unripe state, and the sour ones very sour.—But if swine running in the orchard are allowed to select themselves, they will always eat ripe apples in preference to unripe, and will not confine their eating to sweet varieties, provided good ones of a sub-acid flavor can be obtained.

But in regard to the relative value of sweet and sour apples, in a similar state of ripeness, we are not without results of a positive character. A very observing and careful farmer, the late Payne Wingate, of Hallowell, Maine, made some valuable experiments on the subject.—

He found that when swine were fed with raw apples, sweet ones were best, the animal's teeth appearing to be made sore by the acid ones; but when both were cooked there was no difference in the gain, as ascertained by weighing the pigs produced by an equal quantity of each.—Mr. W. also made experiments to show the value of apples as compared with potatoes. The apples and potatoes were boiled (in as little water as practicable) separately, and about four quarts of oat and pea meal mixed with each bushel, at the time the cooking was finished, the meal being partially cooked by stirring it in with the potatoes and apples while they were hot, and the mass left to ferment, slightly, before it was fed out. Two pigs of the same litter, and nearly of the same weight, were fed for a week. one on a given quantity of the apples and meal, and the other on the same quantity of potatoes and meal. At the end of the week the pigs were weighed, and the food was reversed, the pig which had been fed with apples was fed for a week on potatoes, and *vice versa*. Their food was changed in this manner for several weeks, each pig being weighed at the week's end. The result showed that the apples were fully equal or somewhat superior to the potatoes.

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Okra for Printing Paper.—The Baltimore Ledger of a late date, has the following: The growing demand for printing paper, and the present high prices of the article, rendered it necessary that some new material should be brought into use, which from its abundance and cheapness may recommend it to the favor of the manufacturer. To this end, every experiment should be tried that they may lead to the discovery of the article so much desired. In the Southern and Western States, south of the thirtieth degree of latitude, a garden plant is grown from which printing paper may be manufactured in greater quantities and of a finer quality than is made from all the materials now used in the manufacture of that article. The value of this material as a substitute for hemp has already been tested, with results highly satisfactory.

The plant flourishes best in damp soils and a humid atmosphere. Under the most advantageous circumstances it grows from six to ten feet in height, and will yield several tons to the acre. The stem, like hemp, requires to be stripped of its bark, leaving a core of a beautiful whiteness, with a fibre of the full length of the plant, very strong and pliable. Experiments on a limited scale have recently been made with it, in the manufacture of a cloth used for bagging, with very favorable results. In texture it bears some resemblance to Manilla, though is not so harsh, and is more readily converted into pulp. It may be sown broadcast, requires no cultivation; ripens in a few months and gives an immense yield.—The process of stripping it of its bark is simple and expeditious, and may be performed by the ordinary mode of threshing.

The plant referred to, (says the New Orleans Bulletin,) is the common Okra of the South, which can be grown in inexhaustible quantities. We have seen specimens of hemp manufactured from it, as well as small quantities of the dressed fibre. What we saw was long, white and strong, and seemed well calculated to make excellent rope. We do not see why it will not make good paper. Will not some enterprising individual try the experiment? It is certainly worth the trial.

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Bush your Tomatoes.—It is just as sensible to grow peas without bushing them, as it is tomatos. You may grow both in a slovenly sort of a way, if you have plenty of room on the ground; but you can grow either twice as well upon something to support them, and tomatoes are decidedly better grown up in the air than near the ground, under the shade of a mass of vines. The best support for a tomato vine is a short bush set firmly in the ground. The branches have room to spread among and support the fruit. The plan is much better than tying to stakes and trimming, according to our experience. We have tried both ways. We have every season, for the last four or five years, offered this advice to all growers of this valuable. Bushing will increase the product nearly one-half—will give larger fruit, and it will keep sound much longer on the vines.—*Germantown Telegraph.*

should be grown. In order that the next year's corn, or other hoed crop may derive the greater advantage from the pea crop, it would be best to apply lime, or ashes, to the green crop before turning it under, which would greatly tend to hasten decomposition. Besides being a very useful crop as a fertilizer, the pea should be used as an important crop for stock. When used for this purpose it had better be sown with the corn crop. Hogs are the kind of stock which profit most from the use of the pea, it being the fact that may farmers depend almost solely upon the cultivation of the pea for the raising of their pork. There is much less injury done to the land where hogs are allowed to run upon a pea crop than any other kind of stock, for the reason that they are not apt to eat the vine like cattle and horses. Where the land is so low as to require ditching, and hogs are allowed to run upon it they will to some extent fill up the ditches and injure the field, but not to such an extent as to counterbalance the advantage to the hogs from the eating of the peas. Many farmers contend that it will pay well to cultivate the pea as food for stock even though they are gathered by hand and cooked and fed to them in close pens. This, no doubt, is true, provided the proper attention is paid to the collection of materials to use in the pen for making manure. We are firmly of the opinion that the pea crop is of the greatest importance to the Southern planter, and should be extensively cultivated both with a view to the improvement of the soil as well as for food for stock. It has been truly said that it is the clover of the South, and it should be so considered. There is no part of our State that the pea crop may not be successfully cultivated even from the mountains, to the sea-board, and all that is wanting to make it a universal crop in our State, is to do away with some unreasonable prejudices in regard to it.

DRAINAGE OF LANDS, &c.

It has occurred to us that there is no better and quicker way of increasing the individual as well as national wealth of our State, than by establishing a system under the management of our State government for the draining of lands belonging to individuals. If not at present, the time is close at hand when North Carolina will and must become a real agricultural country, and in as much as this is the case, it is highly important that every means possible be used to elevate and improve the farming interest. It is a well known fact that a very large number of the farmers of our State are, and have been cultivating lands, which they know are not sufficiently drained in order that they may produce such crops as they would produce, if such drainage was effected as may be needed. This being the fact, it will be readily seen that a certain portion of the labor of the farmer every year is lost on this account, to say nothing of the prominent injury done the land. What we propose, is that any farmer who may wish his land more thoroughly drained than it is at present, and who does not feel able to lay out the money necessary to do it himself, be allowed upon these conditions to have his land drained by the State. The plan by which this is to be done, is one which cannot injure the State at all, but will, in hundreds of instances enable the poor man who has a large body of good land to drain it, which at present is worthless, though if drained, would be highly valuable. The plan for the drainage of lands by the State, we propose to be something like this: Where a man wishes his land drained, let him make application to the commissioners on drainage in each county, who shall be appointed by the State, (say three or more) and let them determine what will be the cost of the drainage of the man's farm, and, if after their determination the owner of the land agrees, let this land be mortgaged to the State for the amount required to drain it, and that the owner of the land be required to pay annually so much of the principal, and the interest from the increased product of his farm resulting from the draining of the land. In this way the individual wealth of the State would be greatly increased, which of course, would increase taxation upon the value of the land, greatly add to the revenue of the State. There would, in this plan, be no possible loss to the State, but only aiding a citizen by becoming security, at the same time taking a mortgage upon the property sufficient to cover all losses. Why may not such a bill be introduced before the next Legislature? If it were, it surely would not fail to pass, and in a short time the people of the State would be struck with the efficacy of the plan. Thorough drainage of land is the basis of agricultural improvement, and if this plan were adopted, there are thousands of acres of land which at present are valueless, which would then be drained.

PROF. EMMONS' LETTER.

We call the particular attention of our readers to the letter of Prof. Emmons to Gov. Reid, published in this number of our paper. Those who have read the Farmer's Journal attentively will recollect that we have some time since advanced the same opinion with regard to guano as Dr. Emmons does in this letter. We have ever been of the opinion that it should be used rather as a basis of improvement or as Dr. E. says as preparative for the use of other manures, such as the farmer can procure upon the farm. This opinion of Dr. Emmons, based upon such plain reasoning will surely cause the farmers of the State to purchase less guano, and turn their attention to the raising of more manure upon the farm. The very same opinion which was derived from experience, was by Com. Jones, in regard to guano, in his essay read before the Maryland Agricultural Society. He said that where it was used actively for a succession of years, it caused the soil to become close and dead, to use a common term. We think that farmers would find it to their advantage to use guano more in the compost heap, especially the Peruvian guano, and also to use the Mexican and Peruvian in combination with each other, a plan which we have also suggested before. It is highly important that farmers should apply larger quantities of manure to smaller quantities of land by which means they will have much more time to make manure, for the reason that they make a large product upon a small tract of land allowing so much more time to attend to collecting materials for the barn yard, and other places for making compost.

PAPERS WHICH FAIL TO REACH SUBSCRIBERS. We, as well as other editors, sometimes receive letters from persons stating that they have subscribed for the "Farmer's Journal," and have not received it, and wish to know if we are resolved to cheat them out of their money. Now any reasonable man, if he will think for a moment, he must see at once that it is greatly to the interest of every publisher of a newspaper, that every subscriber should be supplied. So that when a subscriber hereafter fails to get our paper we beg them to attribute the fault where it lies, at the doors of our Post masters, we do not mean all.

THE COVER ON OUR PAPER.—We have abolished the cover on the Farmer's Journal, which costs us a great deal, as it has been suggested by many subscribers that it would look better without it. We hope that as we are resolved to improve the reading matter of our paper that this alteration will make no difference with our subscribers.

N. C. State Agricultural Society.

PROCEEDINGS

Of the North Carolina State Agricultural Society, at the Second Annual Meeting, held in Raleigh, October 16th, 1854.

The North Carolina State Agricultural Society met in the Commons Hall, in the Capitol, on Monday evening the 16th of October, 1854, pursuant to adjournment, the President, R. H. Smith, Esq., in the Chair. The proceedings of the last annual meeting were read by the Secretary, after which Dr. Tompkins, moved that those persons present who are not members of the Society be allowed to come forward and join.

Dr. E. A. Crudup moved that the President appoint a committee of five for the purpose of revising the constitution and bye-laws of the Society, which being adopted, the President appointed the following gentleman: Dr. E. A. Crudup, J. H. Haughton, J. S. Dancy, Dr. W. R. Holt and Dr. J. F. Tompkins.

There being no further business before the Society, S. W. Whiting, Esq., moved an adjournment until 7 1-2 o'clock, P. M., on Tuesday evening the 17th instant, which was unanimously carried.

Tuesday Evening, Oct. 17.

The N. C. State Agricultural Society met in the Commons Hall according to previous adjournment, the President R. H. Smith, Esq., in the Chair. The proceedings of the last meeting were read.

The Caswell county Agricultural Society, through Col. E. P. Jones, presented a memorial asking the State Agricultural Society to postpone the holding of the annual Fairs, which was on motion referred to the committee to revise the constitution and by-laws of the society.

Henry Elliot, Esq., moved that a committee of five be appointed to prepare a memorial and resolutions to lay before the next Legislature upon the subject of dogs, and report at the meeting of the Society on Thursday evening, which was carried, and the following gentlemen appointed for this purpose: Henry Elliot, Hon. Thomas Ruffin, Hon. K. Rayner, Dr. Wm. R. Holt and R. H. Burgwin.

There being no farther business before the Society, it was moved and seconded that the Society adjourn until Wednesday evening the 18th inst. to meet in the Commons Hall at 7 1-2 o'clock, P. M.

Wednesday Evening, Oct. 18th.

The N. C. State Agricultural Society met in the Commons Hall half after seven o'clock, P. M., according to adjournment; the President, R. Smith, Esq, in the chair. The proceedings of the preceeding meeting were read and approved.

The election of officers being the first business in order, the following gentlemen were nominated and unanimously elected:

Hon. THOMAS RUFFIN, of Alamance, President; Hon. A. W. Venable, first Vice President; Doct. Wm. R. Holt, second Vice President; Doct. E. A. Crudup, third Vice President; R. R. Bridgers, fourth Vice President; Doct. J. F. Tompkins, Recording Secretary; T. J. Lemay, Corresponding Secretary, J. F. Hutchins Treasurer.

Mr. Branch moved that a committee of two be appointed by the chair to inform the Hon. Thomas Ruffin of his election to the office of President of the Society and solicit his acceptance of the same. The chair appointed L. O. B. Branch and Major Charles L. Hinton to discharge the duties of said committee.

J. S. Bridgers, Esq., moved that those persons present as delegates from other Agricultural Societies be invited to take seats with the members of the Society, and participate in its proceedings, which was carried.

Dr. E. A. Crudup moved that the committee on the revision of the constitution be instructed to inquire into and report upon the propriety of establishing life membership in the Society and upon what terms, which was carried.

W. H. Jones moved that a committee of two be appointed to examine and report on to-morrow evening upon the accounts of the Treasurer of the Society, which was carried, and W. H. Jones, and F. C. Hill were appointed.

There being no further business before the Society, it was moved that the views of members of the Society upon practical agriculture be given, which was sanctioned, and R. R. Bridgers, H. Elliot, Judge Ruffin, R. H. Smith, H. R. Burgwin, J. S. Dancy, Dr. E. A. Crudup and the Hon. A. W. Venable, made some very appropriate and highly interesting remarks, which were received with much satisfaction by the Society.

There being nothing further before the Society it was moved and seconded that the Society adjourn until Thursday evening the 19th inst. at 7 1-2 o'clock, p. m., which was carried.

Thursday Evening, Oct. 19.

The N. C. State Agricultural Society met according to previous adjournment in the Commons Hall at 7 1-2 o'clock. p. m., the President R. H. Smith, Esq., in the chair.

The proceedings the of last meeting were read and approved.

The committee to whom was referred the memorial and resolutions to the Legislature upon the subject of dogs, submitted through their chairman, the Hon. Thos. Ruffin, of Alamance county, the following report:*

Major Wm. A. Eaton, moved that the report of the committee on dogs be adopted, which was carried.

Dr. Wm. R. Holt moved that two hundred copies of the memorial to the Legislature be printed and sent to the members previous to the meeting of the Legislature, which was adopted.

Henry Elliott moved that J. H. Haughton, Hon. K. Rayner, W. W. Whitaker and R. H. Smith, be appointed a committee to present the above memorial to the Legislature, which was carried.

The President, upon motion, appointed the following delegates to attend the Fairs at Petersburg, Norfolk and Richmond.

Delegates to the Petersburg Fair are, C. L. Hinton, Esq., Dr. R. C. Pritchard, W. A. Eaton, Jere. Nixon, and Dr. L. W. Batchelor.

Delegates to the Norfolk Fair are, R. A. Hamilton, Lewis Thompson, W. S. Hill, J. S. Dancy, and G. W. Collier. R. H. Smith was added to the list of delegates.

Delegates to the Richmond Fair are, Hon. Thomas Ruffin, Hon. K. Rayner, J. S. Bridgers, H. Elliott and H. K. Burgwin.

On motion the President appointed the following committees for the next year.

Committee on Reception, L. O'B. Branch, G. W. Mordecai and the Hon. K. Rayner.

Committee to invite a speaker to deliver the next annual address before the Society, R. A. Hamilton, R. R. Bridgers, and Dr. R. C. Pritchard.

The committe to confer with other agricultural societies as to the best time of holding the annual Fairs in the future, are, H. K. Burgwin, and J. S. Bridgers.

The committee appointed to examine accounts of the Treasurer, J. F. Hutchins, Esq., reported through their chairman, S. W. Whiting, that his accounts were all correct and that there is at his time in the treasury, $4,386 40 subject to the order of the Society.

There being nothing further before the Society, it was moved and seconded that the Society adjourn to meet on Friday evening the 20th of October, at 7 1-2 oclock, P. M.

Friday Evening, Oct. 20th.

The North Carolina State Agricultural Society met according to adjournment, in the Commons Hall, the President, R. H. Smith, Esq., in the chair. The proceedings of the preceding meeting were read and approved.

The President appointed the following committees:

The Executive Committee, Dr. E. A. Crudup, Wm. A. Eaton, W. W. Whitaker, J. F. Taylor, J. C. McRae, Wm. R. Pool, S. W. Whiting, W. D. Cooke, R. A. Hamilton, D. McDaniel, W. H. Jones, Needham Price, J. F. Jordan and J. C. Partridge.

Committee of Arrangements, Dr. E. A. Crudup, chairmain, W. A. Eaton, W. W. Whitaker, Wm. R. Pool, Needham Price, S. W. Whiting W. H. Jones, J. F. Jordan, J. C. McRae, and J. F. Taylor.

Gen. J. B. Littlejohn,	Chief Marshal.	
S. Hayes,	1st Assistant,	
Col. H. J. B. Clark,	2d	"
J. Averitt, Jr.,	3d	"
Col. H. T. Clark,	4th	"
J. H. Yarborough,	5th	"

Mr. Collins moved that the Secretary send a copy of Mr. Rayner's address to each member of the Society, which was carried.

On motion, the President appointed the following gentlemen to attend as delegates the next annual meeting of the United States Agricultural Society in Washington city: Hon. Thomas Ruffin, Hon. K. Rayner, H. K. Burgwin, Lewis Thompson—and on motion of Col. Clark, of Warren, the name of the President of the Society was added to the list.

W. D. Cooke moved that the thanks of the Society be tendered to Jno. Hutchins, Esq., for the zeal and ability manifested by him in the superintendance of the buildings upon the Fair Grounds, which motion was unanimously carried.

Jere. Nixon moved that the sum of one hun-

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* The report being before the Legislature it could not be obtained for publication.

Preserving Bacon from the Fly.—I am induced by motives which every housekeeper will appreciate, to communicate through your valuable journal the following effectual and simple method of preserving bacon from injury by the fly or skipper.

When your bacon is smoked early in the spring before the fly has made its appearance, take quick lime slaked to a dry powder, and rub the meat thoroughly on every part with it, leaving it to adhere as much as possible; hang up your meat, and rest secure from any trouble from insects.

I have tried the above method (communicated to me by an experienced housekeeper) and so well satisfied am I with the experiment, that I consider it of sufficient importance to be made public. I have tried many other means for preserving meat from the fly, but this is the only certain remedy I have ever yet found.

Very truly yours,
AUG. SHRIVEN,
in American Farmer.

How to get Rid of Rats.—Professor Bascom, of Oberlin, in a letter to the *Ohio Farmer*, says:—"The large brown rat often visits my laboratory and other premises. As they come singly, I take off each, the night after I discover signs of his presence, in this wise:—I take half a teaspoonful of dry flour or Indian meal on a plate or piece of board, and sprinkle over it the fraction of a grain of strychnine. This is set in a convenient place, and I invariably find the culprit near the spot dead in the morning. The peculiar advantage of this poison is, it produces muscular spasms, which prevent the animal from reaching his hole to lie and decompose. It is needless to add that such a violent poison should be used with care."

Pickles.—An excellent way to make pickles that will keep a year or more is—drop them into boiling hot water, but not boil them; let them stay ten minutes, wipe them dry, and drop into cold spiced vinegar, and they will not need to be put into salt and water. The above is my wife's rule, which she has proved to be a good one.

Sore Backs.—A correspondent at a distance writes as follows, which may prove serviceable to some of our readers:—"If your horse is troubled with a sore or galled back, rub with lead, softened to a paste with linseed oil, on the injured part, till the sore is completely covered. Some recommend for this purpose a solution of vitriol in water; but the former remedy is far preferable, and, on the whole, more certain to effect a cure. I have known back galls entirely healed and cured by it in a few days. Wounds on any part of the animal, if not deep and of a serious character, are greatly eased and disposed to heal rapidly by this application. Try it."—*Germantown Telegraph.*

Cabbage Worms.—John Farrar, one of the most practical farmers in the State, says these destructive insects may be destroyed in the following easy and simple way:

"Break off a large leaf from the bottom of the cabbage, and place on the top upper side down. Do this in the evening and in the morning you will find near or quite all the worms on each cabbage have taken up their quarters on this leaf. Take off the leaf and kill them, or feed them to the chickens, and place the leap back if there be any more to catch.

Cement to Resist Fire and Water.—Half a pint of new milk, and half a pint of good vinegar. Stir them together until the milk coagulates; remove the curd, and mix with the whey the whites of five eggs, well beaten up; when these are well mixed, add sifted quick-lime, until the whole is about as thick as putty. If this mixture be fully applied and properly dried, it will firmly join what is broken, or fill up cracks of any kind, and will resist fire and water.

To Keep Corn.—The only way to keep sweet corn of any variety for winter use, is to partially cook and then dry it; or put it in a close jar, or other tight vessel. Corn nicely kept in this way, is very good, as we had abundantly tested, years before the Stowell corn was ever heard of.

About Fences.—In reply to an inquiry of a correspondent, the editor of the *Massachusetts Ploughman* gives the following interesting facts: Boards will last a long while when well supported by posts. See the boards of eighty years on old barns and out-buildings. Posts last a vast deal longer in wet soils than in dry, sandy loams—longer in clay than in the richest soil. In peat meadows the bottoms of posts hold out longer than the tops and rails. On dry soils posts should be charred, and if the owner would be at the trouble of placing a few ashes around each post, he would preserve them twice as long as without ashes. Lime also is good to preserve wood, though farmers sometimes use it to hasten the rotting of compost heaps.

* * *

To Farmers.—The Hartford Times, mentions a farmer who took up a fence after it had been standing fourteen years, and found some of the posts nearly sound and others rotted off at the bottom. Looking for the cause, he discovered that the posts which had been inverted from the way they grew, were solid, and those which had been set as they grew rotted off. This is certainly an incident worthy of being noted by our farmers.

* * *

The Butterfly Plant.—The *National Intelligencer* says that a specimen of the singular and beautiful Butterfly Plant is now in bloom at the National Green-house in Washington, District of Columbia. The blossoms are very large and yellow, with reddish brown spots, and are moved to and fro with every breath of air, so as to resemble very much the gaudy insect from which it derives its name. The plant was brought from the Island of St. Thomas in the United States frigate Raritan.

* * *

Moth in Wool.—A recent writer in the English Agricultural Journal recommends the vapor of spirits of turpentine as a remedy for moth in wool. The turpentine should not be placed upon the wool, but left in open dishes in same apartment.

* * *

Foot Rot in Sheep.—The application of double distilled vinegar and sublimate of mercury, is said to act as remedy for foot rot in sheep.

NORTH CAROLINA INSTITUTION FOR THE *Deaf and Dumb and the Blind.*—The Sessions of this Institution will hereafter commence on the First day of September of each year, and continue ten months.

This change has been made in order to bring the vacations into the months of July and August, which, on account of the heat of that season, are less adapted to study than the other months. It also brings the Commencement of the School to the season when the Sheriffs of the different counties are coming in to make their returns, thus affording a good opportunity for parents to send their children.

The following are the Officers in the Intellectual Department of this Institution.

WM D. COOKE, M. A., Principal.

J. A. Waddell, M. D., }
Rev. H. Hardie, } Professors and
Geo. E. Ketcham, } Teachers.
Charles M. Grow. }

☞ Applications for admission should be made to the Principal.

Raleigh, August 14, 1854 tf.

THE FARMER'S JOURNAL

IS Published monthly, at $1 per annnum, in advance six copies for $5; twelve copies for $10; thirty copies for $20.

Advertisements.—A limited number of advertisements will be inserted at the following rates: For one square of twelve lines, for each insertion, $1; one square per annum, $10; half column, do. $30; one column, do. $50; larger advertisements in proportion.

JOHN F. TOMPKINS, Editor.

THE Subscriber will give any special advice to Farmers, by their addressing him and giving a description of their farms. His charge will be moderate. He will make analysis of soils and marls, and write out the analysis for application of manures.

For analysis of soils,	$5 00
Writing out analysis,	5 00

JOHN F. TOMPKINS, M. D.

A CARD.

JAMES M. TOWLES, General Agent for the sale of Agricultural Implements, and Farming Utensils, &c.

N. B. A large number of articles brought to the late Fair are left with me on sale, on all of which the Railroad freight will be saved to the purchaser, a very important item on heavy goods.

November, 1853. 8—

WM. ALLSTON GOURDIN,
Factor and Commission Merchant,
NO. 73 EAST-BAY,
CHARLESTON, S. C.,

IS prepared to make liberal advances on Consignments of Rice, Cotton, Corn, Sugar, Flour, Grain, Hay, &c.

Agent for "Genuine Peruvian Guano" for the States of South Carolina, North Carolina, Georgia, Alabama and Tennessee. Also, Agent for Baltimore and Southern Packet Co.'s Steam-ships.

November, 1853. 8—

WM. H. TAPPEY. WM. C. LUMSDEN

TAPPEY & LUMSDEN,
Iron and Brass Founders and Machinists,
Opposite Jarratt's Tavern and Southern Railroad Depot,
PETERSBURG, VA.
(*Cash paid for old Copper and Brass.*)

RAILROAD CARS, Axles, Wheels Self-Oiling Boxes, &c.; Tobacco Presses, Mills, Cotton Ploughs, and Knives; Cast and Wrought Railing; Steam Engines, Vertical and Circular Saw Mills, Grist Mill Irons of every description, Shafting and all kinds of Machinery, Wagon Boxes, Bells, &c., &c.

November, 1853. 8—

NEW COTTON GIN!!!

Superior to any now in use.

The inventor of the new Cotton Gin, known as "S. R. Parkhurst's Patent Cylinder Gin," after having spent three years, and a vast amount of money has succeeded in perfecting the Gin, so that it can now be offered to the public, with full confidence in its superiority over every machine for cleaning cotton from the seed.

The great value of this machine consists in this; that it leaves the cotton open and free, does not cut or break the staple, but rolls it off the seed in its natural state *making* the lint with from *one to two cents per pound* more for the manufacturer, *by actually bringing* that advance in market The machine will not saw or cut the hand of the operator, and will not catch a stalk, stone, nail, or any hard substance, but throw them out with the seed. The company who own the right for making and selling this Gin for the State of North Carolina, are now manufacturing a large number and are prepared to fill all orders, giving a full guarantee the Gin *will do good service, both in quantity* and quality.

The Gins will be delivered at the Depot nearest the purchaser, and will be set up between this and the next ginning season, *to be paid for when tested, provided they give satisfaction.*

Mr. *C. C. Bonner*, of Rocky Mount, Edgecombe County is Agent for this Gin, who will occasionally pass through the State, and will give full information respecting the Gin.

March 30th, 1854. 2—tf.

A DESIRABLE RESIDENCE FOR SALE.—The subscriber offers for sale her place of residence in Wake Co., N. C., situated Five miles west of Raleigh, immediately on the Central Railroad. The dwelling is a very large and convenient one, handsomely situated.—The out-houses are good, consisting of the Printing Office buildings, Kitchen, Ice-house, Barn, Stables, &c., &c.—There is a well of excellent water, with a chain pump, Also a great variety of Fruit trees, Grape Vines, &c., &c.

The Tract of Land contains 130 acres, 60 acres of which is cleared and susceptible of a high state of improvement: some 20 acres being good meadow land. Other land, if wanted, may be purchased, adjoining.

In consideration of its healthful and convenient location and many valuable improvements, it is in every respect desirable as a place of residence.

Any persons wishing to purchase are invited to call and examine the premises for themselves at as early a day as practicable. G. MEREDITH.

October, 1854. 7—tf.

FIRST PREMIUM!—SMUT & SCREENING MACHINE, YOUNG'S PATENT. Important to Millers and Mill Owners. This machine received the first premium at the North Carolina State Fair, and was recommended to the public as the BEST now in use in the State. Seven hundred of them are now running in North Carolina, all of which are now in operation and have given the most entire satisfaction, in regard both to performance and durability, some having run six years and perform as well now as they did at first, and have not been out of order one day. We have thrown out ten different Smut Machines to make room for this. They are warranted for five years, and delivered at the Mill any where in the State.

Manufactured and sold by

JNO. A. McMANNAN,
South Lowell, Orange County, N. C.

☞ Cut this advertisement out and keep it.

June 10, 1855, n27—tf.

MECHANICS, INVENTORS AND MANUFACTURERS. $570 in cash prizes. Volume ten of the Scientific American, commences on the 16th of September. It is chiefly devoted to the advancement of the interests of *Mechanics, Inventors, Manufacturers and Farmers*, and is edited by men practically skilled in the arts and sciences. Probably no other journal of the same character is so extensively circulated, or so generally esteemed for its practical ability. Nearly all the *Valuable Patents* which issue weekly from the Patent Office are *illustrated with Engravings*, and the claims of all the Patents are published regularly in its columns as they are issued, thus making it a perfect Scientific and Mechanical Encyclopedia of information upon the subjects of *Mechanical Improvements, Chemistry, Engineering* and the *Sciences* generally. It is published weekly in quarto form suitable for binding, and each volume contains Four Hundred and sixteen pages of Reading Matter, several hundred engravings, with a full and complete Index. Its circulation on the last Volume exceeded 23,000 copies per week, and the practical receipts in one volume are worth to any family much more than the subscription price.

The following Cash Prizes are offered by the Publishers for the fourteen largest lists of subscribers sent in by the first of January, 1855:—$100 will be given for the largest list; $75 for the second; $65 for the third; $55 for the fourth; $50 for the fifth; $45 for the sixth; $40 for the seventh; $35 for the eighth; $30 for the ninth; $25 for the tenth; $20 for the eleventh; $15 for the twelfth; $10 for the thirteenth, and $5 for the fourteenth. The cash will be paid to the order of the successful competitor immediately after the first of January, 1855.

Terms:—One copy one year, $2; one copy six months, $1; five copies six months, $4; ten copies six months, $8; ten copies, twelve months, $15; fifteen copies twelve months, $22; twenty copies twelve months, $28 in advance.

No number of subscriptions above twenty can be taken at less than $1 40 each. Names can be sent in at different times and from different Post Offices.

Southern and Western money taken for subscriptions.

Letters should be directed, post-paid, to MUNN & Co., 128 Fulton-st., New York.

Messrs. Munn & Co. are extensively engaged in procuring patents for new inventions, and will advise inventors, without charge, in regard to the novelty of their improvements.

Aug. 1854. n37---tf.

SAMUEL R. BORUM. **HENRY W. FISHER.**

FARMER'S HEAD QUARTERS.

BORUM & FISHER, DEALERS IN BAR AND Bundle Iron of every description, for Farming and Manufacturing purposes. Horse Shoes, Nail Rods, Cut and Wrought Nails and Spikes, &c. Manufacturers of Agricultural Implements and Farming Tools generally, Horse Powers, Threshing Machines, Bamborough's and other celebrated Wheat and Corn Fans, always on hand. Also, Fresh Garden and Field Seeds. Our Catalogue and Almanac is published the first of each year, and may be had gratis, at our New Agricultural and Iron Depot and Seed Store, 11, Water Street, Norfolk, Va.

DEBURG'S No. 1.

SUPER PHOSPHATE OF LIME.

THIS SUPERIOR FERTILIZER MAY BE HAD at the Farmer's Head-Quarters, in any quantity, from one Bag to any number of Tons. Price, when one ton and over is taken, $45,00 per 2,000 lb. Each Bag weighs 150 lbs. and is branded C. B. DeBurg, No. 1, Super Phosphate of Lime. Orders promptly filled.

BORUM & FISHER,
Sole Agents,
Norfolk, Va.

A NEW MAP
OF
NORTH CAROLINA.

The undersigned are preparing, and will publish as soon as the necessary Surveys, &c., can be obtained, New, Large and Complete Map of North Carolina, five feet by three, well engraved and finished in the best style.

It is admitted on all sides, that such a work is a great desideratum in our State, and it is in consequence of the frequent enquiries on this subject, that the undersigned have embarked in the enterprise.

The only attempted work of this kind is that of McRea published in 1833; and since then the Counties, Towns, Roads and Post-offices have increased in number, and all our works of Internal Improvements, with small exceptions, been set on foot.

It is intended that the New Map, now proposed to be published, shall contain, accurately laid down, all the Natural Features of the State—the Inlets, Harbors, Sounds, Lakes, Rivers, Creeks, Mountains, &c.

Also, the public improvements and artificial divisions. The Railroads, Plank roads, Counties, County towns, Post-offices, Cities, Villages, Post-roads and Canals, Colleges, Academies, &c., &c.

The Map will be ready by the summer of 1855.

WILLIAM D. COOKE,
SAMUEL PEARCE.

TERMS:

In best Style, Gilt Rollers and First Impressions,	$ 10,00
In Plain Style, Black Rollers,..................	6,0

Information from any source, and which may be of service in making the above work, will be thankfully received. All communications should be addressed to

WM. D. COOKE.

Raleigh, August, 1854. 22—

⁂ Papers copying the above advertisement for six months and calling attention to it editorially, will be entitled to a copy of the Map. In all cases, a marked copy of the Paper containing the notice, must be sent to the "Southern Weekly Post," Raleigh, N. C.

GLEASON'S PICTORIAL, *For the Year* 1855.

M. M. Ballou, who has edited the "Pictorial" from commencement, having bought out the late proprietor, Mr. F. Gleason, will conduct this popular and widely circulated paper on his own account. The new volume will be radically improved in every respect, and will be published on finer paper than ever before, which quality will be continued henceforth without change. Many new and popular features will at once be introduced, and the literary department will present an array of talent and interest beyond anything it has before attempted. The illustrations will be finer, and by better artists than have before been engaged upon the paper, and altogether the publication will be vastly improved and beautified.

Arrangements have been made for representing during the year views of the most notable buildings and localities throughout the United States, as well as giving likenesses of the most prominent characters, male and female, of artists and men of genius, such as have by their own industry and skill made for themselves a fortune and notable European scenes and occurrences will be given from week to week, forming a brilliant illustrated journal.

TERMS:—INVARIABLY IN ADVANCE.

1 subscriber, one year, - - - - -	$3 00
4 subscribers, " - - - - - -	10 00
10 " " - - - - - -	20 00

☞ Any person sending *sixteen* subscribers at the last rate, will receive the *seventeenth* copy gratis.

Address M. M, BALLOU,
Publisher and Proprietor,
Cor. of Tremont and Bromfield sts.,
Boston, Mass.

Nov. 25, 1854. 52—

JUST PUBLISHED.

REVOLUTIONARY HISTORY OF NORTH CAROLINA,
IN
T [illegible] LECTURES,
BY
REV. F. L. HAWKS, D. D., LL. D.,
HON. D. L. SWAIN, LL. D.,
and HON. W. A. GRAHAM, LL. D.,
TO WHICH IS PREFIXED A PRELIMINARY SKETCH
OF THE
BATTLE OF THE ALAMANCE
and
WAR OF THE REGULATION
COMPILED BY
WM. D. COOKE, A. M.
ILLUSTRATED BY
DARLEY & LOSSING.

A SUPPLY of this valuable work has been received. Price, one dollar. The work will be mailed to any part of the United States upon the receipt of one dollar and five three cent postage stamps. Address,

WM. D. COOKE, *Raleigh*, N. C.

NEW FURNITURE STORE. THE SUBSCRIBER has opened a Furniture Store on Fayetteville Street, opposite Lawrence's Hotel, where he will keep constantly on hand a good stock of Furniture, such as Bureaus, Wardrobes, Chairs, Bedsteads, Rocking Chairs, Revolving Chairs, and every variety of articles usually kept in such establishments, made of Mahogany, Walnut, Poplar, Maple, &c.

☞ All articles in his line manufactured to order with despatch. *Repairing* faithfully executed.

COFFIN MAKIMG.

He has provided himself with a new and handsome Hearse, and is prepared to manufacture Coffins of every description, of Mahogany, Walnut or more common wood.

His terms shall be reasonable and his utmost endeavors given to please. The patronage of the public respectfully solicited.

HENRY J. BROWN.

Raleigh, Oct., 16, 1854. n46--3m.

CARRIAGE MAKING.
RALEIGH COACH FACTORY.

WILLIAMS & GORMAN, HAVING ENlarged their establishment by the addition of Jenkins' Shop [illegible] Hargett street, are fully prepared to execute orders for Carriages of every description. Employing experienced workmen and using the best of materials, their work will always be finished in a style WARRANTED to give satisfaction.

Repairing done with neatness and despatch.

Factory on Hargett street, near the Baptist Grove, and at Clark's old stand, near the Masonic Hall

Raleigh, June 6, 1854. .n28—12m.